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MARINE MAMMAL PROTECTION ACT REAUTHORIZATION

HEARINGS

BEFORE THE

NATIONAL OCEAN POLICY STUDY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON

THE REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT

APRIL 13 AND MAY 19, 1988

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MARINE MAMMAL PROTECTION ACT REAUTHORIZATION

WEDNESDAY, APRIL 13, 1988

U.S. SENATE,
NATIONAL OCEAN POLICY STUDY,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
Washington, DC.

The subcommittee met at 9:34 a.m., in room SR-253, Russell Senate Office Building, Hon. John Kerry (chairman) presiding.

Staff members assigned to these hearings: Penny Dalton, professional staff member, and Bob Eisenbud, minority professional staff member.

OPENING STATEMENT BY SENATOR JOHN KERRY

Senator KERRY. The hearing will come to order. I would like to welcome everybody, witnesses and observers alike.

As you all know, this is a reauthorization hearing on the Marine Mammal Protection Act, and this hearing is basically designed to try to accomplish two things: first, to provide an overview and an evaluation of the programs which relate to the marine mammal protection, management and research; and second, to examine in detail the issues that are related to the killing of porpoises by tuna fishermen in the eastern tropical Pacific.

The MMPA, as I think most people know, is an extremely important Act, which I believe ought to be reauthorized, and I think my colleagues share that belief. It is critical for the protection and conservation of marine mammals, which are essential to our marine ecosystem as well as enjoyed, obviously, by many people recreationally.

The legislation was first enacted in 1972. It responded to a growing public concern at that time over the health and welfare of marine mammals, from seals to whales to dolphins to manatees, sea lions, and many more. And the citizen outcry that took place back then brought us the law which we address today, which has also been through some changes over time.

I think it is an impressive effort, which has marked significant cooperation between environmentalists, commercial fishermen, government officials, and others.

Over the years, the Act has proven successful by replenishing declining species of marine mammals and protecting others from extinction. Through a comprehensive effort, the MMPA has placed a moratorium on the taking and the harassment of marine mammals within the jurisdiction of the United States.

It provides limited exceptions, obviously, where that is both appropriate and necessary. I think that it has proven fairly successful in balancing the need for conservation and management, while also addressing the needs of our fishing interests.

However, while the intentions of the Act have been commendable, the implementation of Congressionally mandated improvements to the law, particularly during the past four years, I think many feel has been inadequate.

Of particular concern is the issuance of regulations relating to the killing of porpoises by the tuna fleet in the eastern tropical Pacific. This issue was examined during the last reauthorization process in 1984. Congress reacted by amending it at that point in time.

Nonetheless, today we see the foreign tuna fleet in the eastern tropical Pacific is killing over 100,000 porpoises a year, and our government agencies have done little to implement the 1984 changes which were designed to address this problem.

Regrettably, during the last four years, regulations issued by the Commerce Department have been delayed and the lack of action by the Department of State has also been somewhat evident.

So I think it is particularly troubling at this time, when we have evidence of the success within our own fleet of what we are able to do to protect porpoises, that we see the killing of porpoises and an unwillingness by foreign fleets to try to implement similar measures.

I think that our U.S. tuna fleet should be applauded for their initial efforts to decrease the mortality of porpoises. In the past decade, the industry has reduced the killing from hundreds of thousands per year down to about 13,000 a year. And this year's level is expected to go down to perhaps 10,000.

More importantly, I think that these reductions have taken place while the tuna catch itself has increased. So I think our effort has been laudatory.

Although the decreases have not yet reached what some or most people feel is an acceptable level, and obviously have not reached zero, they have taken place in a relatively short span of time.

And I think they have certainly proven our ability to impact this problem overall, particularly if foreign fleets and the countries we trade with and work with would join us in this effort.

In addition, the NOAA observer program I think has proven particularly helpful and workable. And I am confident that the industry can decrease the number of marine mammals taken even more and feel certain that they are committed to doing so.

I think it is imperative that we work harder ourselves with our foreign counterparts to educate and to convince them that the current carnage of porpoises in the tuna fishing operation is unnecessary.

Environmentalists have to work with their colleagues overseas to educate the general population on the problem and be as successful as they have been here in this country. In addition, our government must work with foreign governments, particularly through the Inter-American Tropical Tuna Commission, to ensure that an adequate observer program is put in place.

Furthermore, countries not interested in participating in conserving marine mammals should not have access to the tuna market of the United States.

And I think that U.S. fishermen should help foreign fishermen in learning the techniques to catch tuna without the unnecessary killing. And even here in the United States, I think we all know that we could do more.

So I look forward to hearing the panels. We have a number of panels today, and we are going to try to limit the time for the testimony so we have adequate time for questions.

Let me now turn to my colleague, Senator Packwood.

OPENING STATEMENT BY SENATOR BOB PACKWOOD

Senator Packwood. Mr. Chairman, thank you.

I regret that in a few moments I will have to leave to go to another hearing on trade that we are trying to conclude, but I will have some questions to submit for the record.

I wanted to appear here this morning to express my strong interest in the reauthorization of the Marine Mammal Protection Act.

I was in the Senate in 1972 when the Act was passed, and we knew then what we intended. We wanted to try to manage and protect more than 100 species of marine mammals. And I must say, in the 16 years since we passed the Act, it has by and large been a success.

There were arguments as to whether or not we could find tuna nets that would allow us to fish and to reduce porpoise deaths. At the time some people said no. We have discovered yes.

Have there been arguments between environmentalists and others? Yes. But if you ask whether, on balance, this Act worked and has there been reasonable harmony, I think the answer is yes.

Some of the issues that are going to be discussed today focus on the tuna-porpoise issue. And I want to compliment both the industry and the environmentalists in the United States for the success that we have had. It has been a good example of working together rather than working antagonistically.

I am gratified by the progress that has been made by the domestic tuna industry, but there is work still to be done. I look forward to working with the industry and environmental groups to address the problems involving the foreign fishing fleets and to ensure continued progress in this area by the domestic fleet.

Mr. Chairman, it is my understanding that there is going to be a second hearing, to be scheduled to cover issues other than the tuna-porpoise problem. I am especially anxious to hear testimony on the issue of marine mammal fisheries interaction. This is an issue of great concern to a fair number of my constituents, and I look forward to exploring the subject in more detail at a later date.

I look forward to working with you and the other members, and again I want to congratulate all of those who will testify today and subsequently at the very good success we have had over the past 16 years.

Thank you, Mr. Chairman.

Senator Kerry. Thank you very much, Senator.

Senator Breaux.

OPENING STATEMENT BY SENATOR JOHN BREAUX

Senator **Breaux**. Thank you very much, Mr. Chairman. I too join with you in participating in these reauthorization hearings.

The MMPA has been around a long time, as Senator Packwood has indicated. We fought many and very long battles over how to handle the tuna-porpoise conflict over the years.

I am very pleased, Mr. Chairman, that in your opening statement you point out that the U.S. tuna industry has an excellent record, and indeed they do, reducing their take of porpoises incidental to the catch of tuna by some very dramatic numbers.

The program is working in the United States. The problem is not with our tuna industry. The problem is with the foreign fishermen, who take four times more porpoises than our industry does, who have very little recognition of the problem, and absolutely no real interest, I think, in trying to do anything to resolve it.

We in the Congress recognized that problem four years ago when we established some standards that we said foreign fishing fleets would have to follow if they were going to export their product to the United States. They simply have not done that.

And even equally as bad, our government has not done anything about it. We gave them the authority to say that exports to the United States would be restricted if the foreign fleets did not do something about the problem. And what has our government done?

They have not even issued the regulations to institute the program that Congress passed. That has been four years ago. And the real question is where are the regulations? What are they waiting for?

Do we have to have examples like we are going to see this morning in this film, which shows massive slaughter of porpoises by a foreign fishing boat? And I use that last term loosely. I doubt whether it is a real fishing boat, if you look at it.

But where has our government been on this? I am very pleased that this hearings gives us an opportunity to point it out.

Senator **Kerry**. Thank you very much, Senator.

Senator Wilson.

OPENING STATEMENT BY SENATOR WILSON

Senator **Wilson**. Thank you very much, Mr. Chairman. I am gratified not only by your own opening statement, but also by the comments that have been made by Senators Packwood and Breaux. It is clear that all the members of the committee have focused on what is the real problem.

And I will add my voice to the swelling chorus of praise for the domestic industry, in that what was initially thought by many to be a very difficult situation, perhaps not even possible of resolution, has summoned from them a truly remarkable effort.

And as Senator Breaux has stated, the reduction in porpoise kills has been dramatic. In fact, I am advised that in 1987 it was some 32 percent under the allowed quota.

This demonstrates very clearly that the domestic industry has made not only a laudable, but successful, effort, one which candidly I did not think possible. And some years ago, I challenged the wisdom, even the possibility, of what was assigned by the law as their goal.

But as has been pointed out, the real problem, as we will see in this film, is that foreign fleets, exempt from U.S. requirements, are engaging in what has been properly termed by Senator Breaux as the slaughter of porpoise. And I quite agree with him that we have not, we the government of the United States have not, taken the action possible to protect porpoise and, incidentally, protect the domestic industry from the kind of predatory practices on the part of foreign fleets that must be addressed.

So I am grateful to you for convening the hearing. I think it is necessary, and I look forward to hearing from the witnesses.

Senator KERRY. Thank you very much, Senator Wilson.

Senator Stevens.

OPENING STATEMENT BY SENATOR STEVENS

Senator STEVENS. Mr. Chairman, I thank you for holding these hearings. And I too must leave because my amendment is the first one up today, as you know.

I am interested in this hearing, and particularly in the next series of hearings, which will be devoted to issues other than the interaction of the tuna and the porpoise. And I would like to submit for the record some questions that I would seek answers to in order that we might have the issues of the next hearing better focused in terms of responses from the Administration.

As you know, Alaskans have a great interest in this area. The impact of this Act on the commercial fishing operations along our coasts is still in question, and we have an important exemption in this Act for the Alaska natives. We seek to focus on those issues at the next hearing.

As I said, I am sure they are not pertinent here. But I would like to make certain everyone understands that we do have some serious questions about this Act as it applies to the Alaskan natives and to the commercial fishing operations off our coasts.

Not that we are opposed to the act. Do not misunderstand me. But we believe that there ought to be a better definition of this Act and its interaction with the commercial fishing operations.

The domestic fishing industry is now fully utilizing nearly all the fish within our 200 mile limit. Off my state this year for the first time there is no allotment to the foreign fishing operation within the 200 mile limit.

As a consequence, our fishermen now are involved in the area exclusively where this Act was intended to have its original application. At the time we enacted this Act—and I was on the committee at that time—the foreign fishermen dominated the area beyond the three mile limit and there were overwhelming foreign fishing fleets off our shores.

We have had a difficult time Americanizing that 200 mile limit, and I think that we have to keep that in mind now as we look at the application of this Marine Mammal Protection Act to commercial fishing generally, both inside and outside of the 200 mile limit.

I would ask your consent to print my statement in full in the record, and to request that the Administration witnesses scheduled for the second hearing respond to my inquiries for the record, so that we can have the information before the next hearing.

Senator Kerry. Without objection, your statement will be printed and we will indeed do so, Senator Stevens.

And I appreciate your comments and calling attention to the ongoing problems, which is why this was divided and is a bifurcated hearing.

[The statement follows:]

Opening Statement by Senator Stevens

Mr. Chairman, members of the committee, there are several issues of concern to Alaskans in the upcoming reauthorization of the Marine Mammal Protection Act; issues which I would like to touch briefly upon for the record before addressing the focus of today's hearing, which is devoted to examination of the interaction of tuna and porpoise.

Three issues in particular concern my constituents. These are the incidental take of depleted species during commercial fishing operations, changes to the native take exemption, and cooperative management by Federal and State agencies. I would like to submit some questions for the record at the end of my testimony, Mr. Chairman, and would ask that the agencies respond to them before the next hearing on this issue.

Possible depletion of northern fur seals and stellar sea lions and the impact of the recent court decision in *Kokechik Fishermen's Association* v. *Secretary of Commerce* on the ability of the Commerce Department to issue general permits for domestic fishermen is something that the next hearing should address. The potential impact of this on the fishing industry could be tremendous. I hope to hear from NOAA what action they feel is needed to address this problem.

The subsistence harvest of marine mammals continues to play an important role in the lives of Alaska's coastal Indians and Eskimos. I am pleased that the administration has no plans to seek any amendments to the Native exemption. I look forward to discussing with the agencies at the next hearing what could be done to involve Native groups and others in the management of marine mammals.

Both the Fish and Wildlife Service and the National Marine Fisheries Service have developed highly successful cooperative management plans in Alaska. The Fish and Wildlife Service entered into a cooperative agreement with the Alaska Eskimo Walrus Commission and the population is now at historic high levels. Likewise the National Marine Fisheries Service has developed a cooperative management scheme in conjunction with the Alaska Eskimo Whaling Commission for Bowhead Whales. As a result we have seen over a 60-percent increase in the bowhead population over the last 2 years.

I'd like to see the concept of cooperative management refined and expanded to cover other species. I understand the Marine Mammal Commission will submit a proposal by the end of next week. I look forward to discussing that plan and other proposals for cooperative management at our next meeting.

In closing, I would like to turn to the issue at hand. I have had the pleasure of working with the U.S. tuna industry for quite some time. In addressing the question of tuna-porpoise interactions, Mr. Chairman, I would like to remind the committee of the tremendous job the U.S. industry has done in reducing their incidental take of porpoise to the lowest feasible level. They have gone from taking hundreds of thousands of porpoise in the late sixties to a mere 14,000 animals in 1987. The problem is with the unregulated foreign fleets; just as the major fishery problem in my State today is with the unregulated and unobserved take of all species on the high seas by foreign fleets. Unregulated fishing is the problem, Mr. Chairman, and it is time that we take action to stop it.

Senator Stevens. I think that is a very sensible and reasonable decision, and laudable, too. We thank you for that, because I think it is going to separate the questions and the application of this Act in terms of the area that is primarily domestic as opposed to the issues beyond the 200 mile limit.

Senator Kerry. Understood. Good.

I also have a statement for the record from the Chairman, Senator Hollings.

[The statement follows:]

OPENING STATEMENT BY THE CHAIRMAN

Fifteen years have passed since the enactment of the Marine Mammal Protection Act of 1972. In the intervening years, we have reauthorized the MMPA several times, modifying its provisions to develop a balanced and comprehensive federal program for marine mammal conservation and management. This year as part of the reauthorization process, Congress will once again reevaluate the effectiveness of the MMPA. The purpose fo our hearing today is to begin that review and evaluation.

Looking back at the last 15 years, I can point with satisfaction to the successess of the Marine Mammal Protection Act. Over this period, we have overseen the development of a major federal effort to study and protect marine mammals. Commercial whaling has been virtually ended. The decline in many populations has been slowed and in some cases, such as sea otters and grey whales, even reversed. One notable success, which we will discuss more fully today, is the reduction in the number of porpoises caught by the U.S. tuna fleet. In 1972, U.S. tuna purse seiners were estimated to kill or seriously injure over 300,000 porpoises. By 1987, that incidental take had dropped to under 15,000 animals. This reduction of more than 95% represents an impressive accomplishment by the fishing industry. And I am optimistic that additional reductions are still possible.

Looking forward, a large number of challenges remain. The high porpoise kill rates of the foreign tuna fleets threaten to undermine the progress of our domestic tuna seiners. Other fishery-marine mammal conflicts seem to develop and become more serious each year. Finally, the list of depleted and threatened stocks continues to grow.

One well-documented cause of the marine mammal mortality is entanglement in lost fishing nets and other plastic debris. This Committee and the Congress recently took action to address two aspects of this problem. The first is implementation of an international agreement to restrict garbage disposal from ships and thereby eliminate a major source of entangling plastic in the marine environment. The second is enactment of legislation to monitor and enforce restrictions on the use of driftnets on the high seas. Our challenge now is to ensure that these measures are fully and effectively implemented.

In addition, I continue to have larger concerns for the overall health of our coastal marine environment. Last summer, hundreds of dolphins washed up on the beaches on the east coast of the U.S. Although researchers are still studying the cause of that dolphin epidemic, initial findings indicate that one contributor may have been poor coastal water conditions. These incidents provide one more reminder that we cannot hope to protect our marine resources without a comprehensive plan for managing our coastal and marine environment as a whole. The goal of the Marine Mammal Protection Act seems as appropriate now as it was fifteen years ago—to maintain the health and stability of the marine ecosystem.

I look forward to today's testimony to identify issues for the Committee to consider during the reauthorization process. I also look to the witnesses for recommendations which will improve the effectiveness of the MMPA and bring us closer to the goal of a healthy and stable marine ecosystem.

Senator KERRY. I think every Senator that has had a comment on this has pointed out, and appropriately, the distinction between what our fleet is doing and what can be done and what others are doing.

The purpose of this hearing is to try to highlight the problem with respect to that.

So without further delay, I would like to call the first panel if I may, and we will proceed with the testimony of Mr. Jim Douglas, Gary Edwards, and William Fox.

Gentlemen, I know you will bear with me, but we do want to try to hold the statements down to about five minutes, if possible, in order to allow time for questioning. And we have a number of panels.

If you would identify yourselves for the record. I think we will begin with Mr. Douglas, go to Mr. Edwards, and then Mr. Fox.

STATEMENT OF JAMES E. DOUGLAS, JR., ACTING ASSISTANT ADMINISTRATOR FOR FISHERIES, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE, ACCOMPANIED BY DR. NANCY FOSTER, DIRECTOR, OFFICE OF PROTECTED RESOURCES AND HABITAT; AND CHARLES FULLERTON, DIRECTOR, SOUTHWEST REGION

Mr. DOUGLAS. Thank you, Mr. Chairman, members of the committee.

I am James Douglas, Jr. I am the Deputy Assistant Administrator for Fisheries of the National Oceanic and Atmospheric Administration of the Department of Commerce. I have with me today, but not at the table, Dr. Nancy Foster, Director, Office of Protected Resources and Habitat. And I have with me at the table Mr. Charles Fullerton, who is the Director of our Southwest Region, wherein most of the activity concerning the import regulations on the tuna-porpoise issue reside.

My formal statement is before you for inclusion in the record. However, I believe I can summarize the more salient points and the important, critical points for the committee in very little time.

The Department of Commerce supports reauthorization of the Marine Mammal Protection Act of 1972 because we believe that this Act has been a key factor in the recovery of several populations, notable of which is the significant reduction in porpoise mortality associated with the U.S. tuna purse seine fishery.

Also, seal and sea lion populations along the West and Northeast coasts are showing some increase. The gray whale has recovered to near its original abundance, and in fact the National Marine Fisheries Service will be reviewing the status of this marine mammal to see if its listing as endangered should be changed.

Even though there have been some success stories, there continue to be problems. Episodic events, such as the heavy East Coast dolphin deaths experienced this summer, continue to cause us concern.

In addition, the deaths of several whales due to toxic substances found in the mackerel on which they had been feeding continue to drive home the fact that the marine ecosystem is indeed fragile and the magnificent creatures that thrive therein are always subject to perturbations, whether natural or manmade, that threaten their health and welfare.

Pollution, debris, entanglement also are threats to marine mammals. One of our greatest concerns in implementing the Marine Mammal Protection Act over the years is the growing realization that the marine ecosystem is highly interactive and many of man's legitimate activities pose dangers to marine mammals.

Our challenge is to find a balance between man's need to use the marine environment for commerce, be it extraction of food through commercial and recreational fishing or use of the waterways for transportation, and to maintain healthy stocks of marine mammals.

Nowhere has this challenge been more focused than in the recent case of a permit for an incidental take of Dall's porpoise issued to the Japanese salmon fleet. The challenge to that permit has been upheld by our courts and the legal interpretation expressed in this case leaves serious doubt as to whether viable commercial fishing operations can be conducted in areas where incidental take of depleted marine mammals is likely to occur.

Fortunately, Mr. Chairman, this dilemma is recognized by both the commercial fishing industry and the proponents of the welfare of the marine mammals, and a working group of commercial fishing interests and the environmental community are already at work seeking a solution to this problem. Although their work is not complete, I am encouraged by the reports we are receiving.

I would parenthetically add that I am pleased to hear the committee indicate that there will be a subsequent hearing wherein these questions will be addressed more substantively.

Mr. Chairman, NOAA believes that it is just such an effort as represented by this group that holds out the greatest promise for a workable solution to these problems. We are committed to seeking an answer through this process, and everyone in that process understands the need to develop an acceptable answer within the very near future.

Again, I am optimistic by the time you next meet to address this act we will be able to report that their deliberations have reached an acceptable conclusion.

This same group is addressing yet another problem encountered over the last several years, and that is what we call "nuisance animals." These are marine mammals that purposely interfere and feed on particularly valuable fish stocks such as salmon and steelhead trout in the Northwest Pacific. Again, I am optimistic that an acceptable recommendation will be forthcoming.

We will also recommond some ways in which the enforcement provisions of this Act can be strengthened.

Lastly, I wish to inform the committee that NOAA has published interim final regulations governing the importation of tuna from those nations fishing on porpoise in the Pacific. These regulations have been a long time in the making, and we feel will contribute significantly to reduced porpoise mortality in the foreign tuna fishery.

Developing these regulations was no easy task, particularly in light of the fact that these foreign nations with alternate markets other than the U.S. market would have no incentive to abide by our standards for reduced porpoise kill.

Indeed, Mr. Chairman, the goal of our actions is to reduce porpoise mortality. If our actions result in driving foreign tuna out of the U.S. market, but into other markets, then we may have achieved a hollow victory as far as the porpoise are concerned.

Again, I am optimistic that these regulations will have the desired effect and that foreign-related porpoise mortality will indeed begin to decline. At least we are headed in the right direction from the figures from 1986 to 1987.

Mr. Chairman, the Congress faces a difficult task in reauthorizing and amending the Marine Mammal Protection Act. Many of the issues are multifaceted and thorny. NOAA stands ready to assist you with our very best data and our best advice.

I think I can sum up our collective problem with one statement; there are no simple solutions, only intelligent choices.

Mr. Chairman, that concludes my oral testimony. My colleagues and I will try to answer any questions you have, and if we do not have the data here we will certainly provide it to you for the record.

I thank you, sir.

[The statement follows:]

STATEMENT OF JAMES E. DOUGLAS, JR., DEPUTY ASSISTANT ADMINISTRATOR FOR FISHERIES, NOAA

Mr. Chairman and members of the committee, I am James E. Douglas, Jr., Deputy Assistant Administrator for Fisheries, of the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). With me today are Dr. Nancy Foster, Director of the National Marine Fisheries Service's (NMFS) Office of Protected Resources and Habitat Programs and Mr. E. Charles Fullerton, Director of the NMFS Southwest Region.

The Department of Commerce supports reauthorization of the Marine Mammal Protection Act (NMPA) of 1972. Since its enactment, the NMPA has been an important element of our Nation's wildlife conservation efforts. The NMPA recognized that marine mammals are an important element of marine ecosystems and are resources of great aesthetic, recreational and economic significance, and established a comprehensive program for marine mammal conservation. The MMPA has been a key factor in the recovery of several populations. For example, the mortality of porpoise in the U.S. tuna purse-seine fishery has been reduced significantly, seal and sea lion populations along the west and northeast coasts are increasing, and the gray whale has recovered to near its original abundance.

We have made significant progress in managing marine mammals, but a number of challenges remain. There are increasing numbers of interactions between marine mammal populations and human activities. These interactions are having serious effects on people, marine mammals and other marine resources. Marine mammals are being entangled in fishing gear, injured in collisions with boats, and sometimes illegally killed. People and businesses are being affected by damage to fishing gear and reductions of catch of fisheries resources. To give you an idea of how large the problem is, incidental taking associated with fisheries in U.S. waters involves over 20 species and 10,000 marine mammals. It is becoming more and more difficult to manage the taking of these marine mammals so as to allow the three-billion-pound American fisheries to continue. Our greatest challenge is to develop effective management strategies to deal with these interactions while keeping adverse effects on both the marine mammals and marine user groups to a minimum.

We support authorizing appropriations for the marine mammal protection activities of the Department of Commerce at a level of $7,320,000 for fiscal year 1989 and at such sums as may be necessary for fiscal year 1990. However, we believe the MMPA needs to be revised to strengthen the enforcement provisions of the Act and to allow Federal agencies a broader range of management options to address present and future marine mammal-human interaction problems.

DEPLETION

The area of immediate concern is the lack of authority to allow takes of depleted marine mammals incidental to commercial fishing operations. Unless this issue is resolved, the fishing industry could be faced with severe economic losses.

Under the MMPA, a species is considered depleted if it is below its optimum sustainable population (OSP) level. Takes from depleted populations are allowed only under limited circumstances, including subsistence by Native Alaskans, small takings incidental to activities other than commercial fishing, and scientific research. No taking of depleted species is allowed incidental to commercial fishing. Gathering data to make determinations of the status of species with respect to OSP is very costly and time consuming. Thus we are not able to make valid scientific determinations regarding depletion for most species of marine mammals in a timely manner. If a species' status relative to its OSP cannot be determined, under the MMPA, as judicially interpreted, permits to take that species incidental to commercial fishing cannot be issued. This is true even if the taking would not significantly affect the biological status of the population.

NMFS has interpreted its authority under the MMPA to include discretion to issue permits for incidental taking if the populations covered by the permit are within OSP, without proving that all other species that might be taken are also within OSP. However, in a recent decision involving a permit allowing a take of Dall's porpoise incidental to the Japanese salmon fishery, the United States Court of Appeals rejected NMFS's interpretation. In a two to one decision, the court ruled that NMFS did not have the authority to issue a permit for Dall's porpoise since other marine mammals (such as the fur seal) which were not demonstrably at OSP also were likely to be taken.

Unless this decision is overturned or Congress amends the Act, NOAA may not be able to renew the general permits to the U.S. domestic fishing industry that expire at the end of 1988 because depleted species or species of unknown status might be taken. NMFS has begun the administrative process necessary to consider the reissuance of the general permits, and a range of alternatives is being evaluated in a draft environmental impact statement. However, some of these alternatives could not be implemented under the Court of Appeal's interpretation of existing law.

The fishing industry and the conservation community both recognize the seriousness of the problem and have formed a working group to develop a solution acceptable to all. This group is working to develop an amendment to the MMPA that would provide greater latitude in managing populations of marine mammals that are depleted or of unknown status by allowing a take of depleted species incidental to commercial fishing provided that there are adequate safeguards for the affected marine mammal populations. We look forward to receiving the group's recommendations and will incorporate them, as appropriate, into our own legislative proposal.

NUISANCE ANIMALS

Some pinniped populations on the west and northeast coasts have increased to the point where they frequently damage other marine resources and cause significant losses of fishing gear and catch. Many of these interaction problems have not been resolved effectively. For example, since 1983, Federal and State authorities have attempted to prevent California sea lions from decimating a small run of steelhead trout in Lake Washington. Despite using harassment, taste aversion conditioning, and other non-lethal measures, we have not been successful in reducing predation by these sea lions. NOAA, the fishing industry and the conservation community are working together to determine how to deal adequately with nuisance animals.

ENFORCEMENT

Effective administration of the MMPA hinges upon NOAA's ability to fully enforce its provisions. We believe that the MMPA's enforcement provisions are inadequate in a number of respects. The enforcement authority found in other statutes administered by NOAA, most notably the Magnuson Fishery Conservation and Management Act and the Endangered Species Act, is superior to the MMPA. For example, the MMPA does not specify a standard for judicial review of administrative civil penalty actions and does not provide NMFS with sufficient subpoena and forfeiture authority or the ability to impose maritime liens and recover storage costs for seized marine mammal products. Shortly, we will submit to the Congress technical amendments to correct these deficiencies by making MMPA enforcement provisions more consistent with those in the Magnuson Act and other natural resource protection statutes.

SALE OF FUR SEAL SKINS TAKEN IN THE SUBSISTENCE HARVEST

Aleut residents of the Pribilof Islands want to sell fur seal skins taken in their annual subsistence harvest. Under the MMPA, by-products of the subsistence harvest cannot be sold unless first made into authentic articles of native handicraft. However, the Aleuts want to sell raw skins to fur processors in the U.S. and abroad.

The purpose of the MMPA's prohibition on commercial sale of subsistence harvest by-products is to limit the take of marine mammals to only those needed for legitimate subsistence and handicraft uses. Sale of raw skins may provide additional incentive to harvest the sales beyond subsistence needs. Further, other Native Alaskans might seek to sell subsistence by-products such as ivory and teeth that were not made into traditional handicraft. Changes to the Native subsistence provisions of the Act would be acceptable to NOAA if the take remained truly for subsistence and if it could be adequately enforced. We will be happy to work with the Congress if it decides to address this issue.

Porpoise mortality

Congress amended the MMPA in 1984 to extend the general permit held by the American Tunaboat Association and to continue the quota on the taking of porpoise of 20,500 per year in the eastern tropical pacific (ETP). This allows the U.S. tuna fleet to continue fishing for yellowfin tuna in association with propoise stocks some of which may be depleted. The 1984 amendments also required NOAA to undertake a five-year assessment of the affected porpoise stocks. This assessment has been underway since 1986. Besides using data collected on research vessels, NOAA is developing statistical methods to use information collected by observers on tuna vessels to monitor changes in the relative abundance of the stocks. In 1991, NOAA will determine whether the stocks of porpoise affected by the multinational tuna fishery are increasing, decreasing or stable.

The U.S. industry has remained below the 20,500 quota every year since the Act was amended in 1984, except for 1986 when the quota was reached in October. We are, however, quite concerned over porpoise mortality in the foreign segment of this fishery.

INCIDENTAL TAKE LEVELS FOR THE LAST 4 YEARS

Year	U.S. vessels	Non-U.S. vessels	Total
1984	17,732	15,018	32,750
1985	19,205	36,032	55,297
1986	20,692	103,905	124,597
1987	13,992	64,505	78,497

Import regulations

NOAA recently published regulations governing the importation of yellowfin tuna that we believe will greatly assist us in reducing porpoise mortality. In developing these regulations, the problem we faced was establishing requirements strict enough to immediately begin the reduction of porpoise mortality without causing foreign nations to develop alternative tuna markets and continue to fish for tuna without regard to porpoise mortality. We believe these regulations satisfy the major concerns of the conservation community and the industry. They provide for an observer program to monitor and report porpoise mortality, an annual certification program to assure compliance with U.S. requirements in order to continue exporting tuna to U.S. markets, and a comparability test that distinguishes variability in performance between small and large fleets of foreign nations.

Specifically, foreign nations purse seining in the ETP and wishing to export yellowfin tuna to the U.S. must prove to us that they have laws and regulations designed to protect porpoise. Their regulations and porpoise saving gear must be comparable to those of the U.S. In addition, each nation must submit observer data collected on porpoise mortality. Starting next year, annual mortality rates must show improvement to remain "comparable." This improving trend in mortality must continue and by 1991 a foreign kill rate must be no greater than 25 percent above the U.S. rate if they have large fleets like Mexico, or 75 percent for smaller fleets.

We believe this gradually improving mortality rate meets the intent of the 1984 amendments. The alternative, imposing an immediate and mortality rate comparison test, would result in an almost total prohibition of import of yellowfin tuna from these nations. As a result of a U.S. prohibition, foreign nations would most likely develop alternative tuna markets and continue fishing for tuna associated with porpoise completely outside the jurisdiction of the MMPA. In addition to reduce porpoise protection, unrealistic requirements could put the U.S. tuna processors, especially those in Puerto Rico, at a severe disadvantage in the world-wide tuna industry.

We believe the most effective way to reduce porpoise mortality by all nations is through an international program among nations fishing for tuna associated with porpoise. Currently, the Inter-American Tropical Tuna Commission is an effective partner in an international porpoise research program to reduce porpoise mortality in the ETP. This observer program provides the only source of scientific estimates of porpoise mortality for the international fleet. We will continue our cooperation and support for this international program in an effort to further reduce non-U.S. porpoise mortality.

STATUS OF POPULATIONS

The NMFS is responsible for over 100 species of marine mammals. Some of these populations are healthy or increasing, and others have been reduced or are still declining. Each year we prepare an annual report that includes updated information on the status of marine mammal populations. We submitted a copy of our most recent report to the Congress in August 1987. We have concentrated our efforts on those species that are depressed or are affected by man's activities. We are conducting stock and impact assessments for species taken in domestic fisheries in connection with the reissurance of the general permits. These assessments will be available later this year.

Dall's Porpoise

For management purposes NOAA has determined that there are three populations of Dall's porpoise within U.S. waters: a Bering Sea, a western Pacific and an eastern Pacific population. The western Pacific and Bering Sea populations total over 950,000 and are well within their OSP. The eastern Pacific population is currently under review as part of the stock assessment for reissuance of general permits.

We are concerned over the impacts of the high seas squid gillnet fisheries on the North Pacific populations.

Dall's porpoise are taken in the Japanese salmon gillnet fishery within and outside of the U.S. Exclusive Economic Zone (EEZ) in the North Pacific Ocean and Bering Sea. In 1987, NMFS issued Japan a general permit that allowed a taking of about 6,000 Dall's porpoise during a 3-year period based on a determination that the stocks would not be disadvantaged. Based on the previously noted recent Court ruling, the Dall's porpoise permit is not valid since species that are not at OSP, such as the fur seal, would also be taken, albeit in small number. Therefore, the Japanese salmon fishery may not operate this summer in the U.S. EEZ as contemplated by the International North Pacific Fisheries Convention (INPFC). As a result, Japan may withdraw from, or seek to renegotiate the INPFC. This would allow them to fish in areas where the take of North American origin salmon and marine mammals would be higher than when Japan fishes inside the U.S. EEZ and targets Asian stocks of Salmon. Additionally, the denial of the Dall's porposie permit will eliminate a cooperative U.S.-Japanese research program to place U.S scientific observers on Japanese high seas squid driftnet vessels that operate entirely beyond our EEZ.

Northern Fur Seal

The Pribilof Island population of North Pacific fur seal has declined from about 2.2 million in the 1950's to 800,000 today. The causes of the decline remain under investigation. In 1986, NMFS published a proposed rule to designate the population as depleted, and we expect in the near future to publish a final rule designating the population as depleted.

Since 1985, a subsistence harvest of fur seals has been conducted by Aleut residents of the Pribilof Islands following regulations under the Fur Seal Act and the MMPA. About 2,000 subadult male seals are harvested for food each summer. Season, sex and age limits are set to protect the seal herd and estimated harvest ranges are reconsidered each year.

Steller Sea Lion

The Steller (Northern) sea lion population in Alaska has also declined significantly from about 140,000 in the 1950's to 68,000 in 1985. Most of the decline has occurred since the late 1970's. The causes of the decline remain under investigation, and fisheries-related mortality factors, including incidental take, directed killing by fishermen, changes in prey species, and entanglement in discarded fishing gear and other debris, have been examined as possible causes. NMFS is currently considering whether to propose this population for designation as depleted.

Six domestic general permits expiring the 1988 authorize an incidental take of a total of 2,130 Steller sea lions annually in the North Pacific. If Steller sea lions are found to be depleted, NMFS cannot issue permits for their incidental take, nor can it, under the Court of Appeal's decision on Dall's porpoise, issue permits for other species if inevitably these animals will be taken.

California Sea Lion

The California sea lion is another species that is taken incidentally in commercial fishing operations. This species interacts with almost every fishery on the west coast, causing most of the estimated $600,000 annual damage from marine mammals to California's commercial fisheries. Despite an incidental mortaility of 2,000 to 3,000 animals a year, the population has increased from about 40,000 animals in 1972 to 80,000 animals today and is continuing to increase at about 6.5% per year.

In the past, NOAA has issued general permits authorizing the incidental take of California sea lions because the population was large, inhabited its known historic range, and was increasing despite the level of incidental mortality. However a recent assessment shows that the population may be below OSP. If this is true, general permits to allow a take of this species are in jeopardy. This is a good example of how the very limited management options available for depleted species may result in severe economic consequences even though we believe the stocks can tolerate the expected level of incidential mortality.

Hawaiian Monk Seal

The status of the Hawaiian monk seal has not changed substantially since its listing as endangered in 1976. The population was last estimated in 1985 at 1,488 animals. NMFS is implementing a recovery plan that was developed in 1983 by the Hawaiian monk seal recovery team. As recommended by the team and others, NMFS has designated as critical habitat several areas in the northwestern Hawaiian Islands. Research includes yearly counts of pups at all major breeding locations and studies of physiology, feeding habits and the effects of marine debris.

Bowhead Whales

NOAA's National Marine Mammal Laboratory has continued to fund research by the Alaska Eskimo Whaling Commission and North Slope Borough on the endangered bowhead whale. Expanded studies have resulted in a population estimate for the western Arctic stock of whales at 7,200 (plus or minus 2,400) based on both visual and acoustic survey data collected during the 1985 spring migration. The International Whaling Commission's (IWC) Scientific Committee accepted this population estimate in 1987. Although the Committee recommended that it remain a Protection Stock, it supported the continued subsistence harvest of bowheads by Alaskan natives. The U.S. aboriginal subsistence proposal of 32 strikes in 1987 and 35 strikes in 1988 was unanimously accepted by the IWC, indicating the strength of the scientific analyses leading to the current population estimate and proposed strike limits.

Right Whales

Although protected from whaling since 1931, right whale populations have shown little evidence of recovery. Fewer than 200 remain in the North Pacific, a few hundred in the North Atlantic, and about 3,000 in the Southern Hemisphere. The North Atlantic Right Whale Consortium, funded through NMFS' Northeast Fisheries Center, is continuing research on the North Atlantic stock. Research efforts are focused on the population's breeding and foraging habitat; using fluke photographs for identification and tracking of individual whales; and consolidating all available data. Concerns for the right whales include entanglement in fishing gear, the effects of whale watching, dredging, and vessel traffic particularly in the calving grounds off the southeast United States. In consultation with the right whale recovery team, we are developing a recovery plan for North Atlantic and Pacific stocks of right whales which is expected to be adopted by the end of 1988.

Humpback Whale

The humpback whale population in the western north Atlantic is estimated at about 5,800 animals, with over 3,500 having been individually identified. The population in the Pacific is estimated at about 1,600. The greatest impacts on the species today occur from entanglement in fishing gear, pollutants, vessel traffic and habitat destruction. A recovery team has been appointed and is presently reviewing a draft recovery plan which addresses these concerns. A plan is expected to be adopted late this year.

California Gray Whale

Although severely depleted by whaling, the California stock of gray whale has been increasing and has recovered to near its preexploitation population size. The population is estimated at about 18,000 animals. Because of its recovery, we will review the status of this species and the existing threats to the population to determine whether or not it should remain listed as an endangered species.

ACTIVITIES AND ACCOMPLISHMENTS

The remainder of my testimony focuses on other aspects of NOAA's marine mammal program, including some other issues and significant accomplishments.

Permit Program review

As part of our marine mammal management program, NMFS issues and monitors permits for scientific research and public display. Currently there are over 400 active permits. Recently a number of concerns involving this program have been brought to our attention. This has prompted NMFS to review the policies, criteria and procedures we use in evaluating applications and in issuing and monitoring these permits. This review will be conducted in close consultation with the scientific community, the public display industry, environmental organizations and other interested parties. Regulatory and policy changes resulting from this review we hope will resolve most of the permit concerns raised.

Federal coordination

NMFS works closely with other Federal agencies, such as the Minerals Management Service, Environmental Protection Agency and the Corps of Engineers, in their project planning to ensure that marine mammal concerns have been addressed and the requirements of the MMPA have been satisfied. We also coordinate our marine mammal programs with the Marine Mammal Commission and U.S. Fish and Wildlife Service. This March, NMFS and the Fish and Wildlife Service published proposed regulations to implement the 1986 amendment to the MMPA that allows a small take of depleted marine mammals incidental to activities other than commercial fishing. Taking can only be allowed if it will have a negligible impact on the species and regulations must be issued that include permissible methods of taking and means of minimizing impacts. We are now considering allowing six oil companies to take by harassment a small number of bowhead and gray whales incidental to oil and gas exploration activities in the Beaufort and Chukchi Seas.

Strandings

Two unusual stranding episodes recently occurred along the U.S. Atlantic Coast. The first, involving bottlenose dolphins, started in July 1987 along the coasts of New Jersey, Delaware, Maryland, and Virginia. During the fall, as the dolphin population migrated south for the winter, larger than normal numbers of strandings occurred along the coasts of the Carolinas and Georgia. Although the rate has declined markedly, strandings are still occurring, but not beyond Central Florida. To date we have documented a loss of 744 dolphins.

Pathological examinations have shown that the dolphins died from massive bacterial infections. These bacteria normally are found in these dolphins and it is questionable whether the animals would have been vulnerable to such infections unless they had been affected by disease, toxins, stress, or other factors which weaken the immune system. Although viruses have been isolated from dead dolphins, it is not known if these were the cause of the mortalities.

The second stranding episode primarily concerned humpback whales in the vicinity of Cape Cod. Beginning in late November of 1987 and ending in early February 1988, a total of 21 whales died. This included 15 humpback whales, 4 minke whales and 2 fin whales. We believe that the whales died from biotoxins ingested when feeding on large amounts of mackerel. The source of the biotoxin, which concentrates in the internal organs of fish, is unknown.

In dealing with each of these incidents, NOAA has cooperated with the Marine Mammal Commission, the Smithsonian Institution and other local, state and Federal agencies in establishing investigative response teams. The efforts of local marine aquaria, academia, and the environmental community were very important in helping NOAA respond effectively to these emergencies, and are much appreciated.

Entanglement

To address the problem of marine plastic pollution, NOAA has conducted several studies on debris and fishing gear entanglement issues. Base funding will allow for further support of related activities. NOAA has been working with Japan, Taiwan and Korea to address the proliferation of plastic in the North Pacific Ocean. The Driftnet Impact Monitoring, Assessment, and Control Act, which was enacted in December 1987, requires the U.S. to negotiate observer and enforcement agreements with these and other governments pursuing high seas driftnet fisheries in the North Pacific. Steps have been initiated with the Department of State to begin these negotiations.

NOAA also recommended that the Congress support early ratification of Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL), which, with limited exceptions, prohibits the disposal into the sea of all plastics. With the U.S. accession, Annex V will enter into force internationally in 1989.

In April 1987, 30 U.S. Senators wrote to President Reagan expressing their concern over increasing amounts of plastic debris in the ocean and asked that the Administration help Congress develop a strategy to reduce problems caused by plastic in the marine environment. In response, NOAA is chairing an Interagency Marine Debris Task Force established to assess the problem and the need for research, identify potential reduction measures, and consider alternative actions to address the problem of plastic marine pollution. Reviews, studies and workshops addressing these tasks are now underway and the report of the Task Force is expected later this year.

Whale watching

Since the late 1970's, NMFS has been concerned that marine mammals, especially the great whales, may be adversely affected by activities associated with whale watching. In November 1987, NMFS issued interim regulations governing approaching humpback whales in Hawaiian waters. Previous guidelines addressing whale watching in Hawaiian waters were not effective in preventing these whales from being harassed. To provide better protection for all whales, NMFS will sponsor a whale watching workshop in October 1988. The workshop will bring together members of the scientific community, the environmental community, and the industry, with the purpose of reviewing available information to determine the effects of whale watching and how any adverse effects can be kept to a minimum. NOAA will use the results of this workshop to formulate a national policy and action plan. We believe this is the best way to develop a program that all parties can support.

CONCLUSION

Mr. Chairman, in conclusion we support reauthorizing this important wildlife conservation act at levels for the Department of Commerce of $7,320,000 for fiscal year 1989 and at such sums as may be necessary for fiscal year 1990.

In addition, we believe that the continuing problem of marine mammal and marine user interactions is significant and warrants your attention during this reauthorization process. Unless we have more options in managing depleted species, some U.S. fisheries will not be able to continue without violating the MMPA.

I thank the committee for this opportunity to express the views of the Department, and will try to answer any questions you may have.

[The following information was subsequently received for the record:]

NOAA Responses to Questions Posed By Senator Hollings, for the Record of the April 13, 1988 Hearing on Reauthorization of the Marine Mammal Protection Act

1. In 1986, NMFS published a proposed rule to designate Pribilof fur seals as depleted. I understand that a final designation is expected in the near future.

   - Has NMFS completed work on the rulemaking? If so, where is it in the Federal review process?

   - What action will NMFS take with respect to fishing activities in the North Pacific if a designation of depleted is made?

ANSWER: A Final Rule designating the Pribilof Island population of North Pacific fur seals as depleted under the MMPA was prepared by NMFS, and cleared by NOAA, the Department of Commerce, and OMB. The Final Rule was published in the Federal Register on May 18, 1988.

Under the MMPA, no taking of a depleted species is allowed incidental to commercial fishing. Six domestic general permits issued by NMFS in 1984 authorize the incidental take of fur seals and other marine mammals in the North Pacific Ocean. These five-year permits expire on December 31, 1988. Under present law, NMFS cannot issue permits for the incidental take of fur seals, although it is known that these animals will inevitably be taken in the course of some fisheries operations. NMFS has interpreted its authority under the MMPA to include discretion to issue permits for incidental taking when populations covered by the permit will not be disadvantaged, without requiring proof that all other species that might possibly be taken are also within OSP. However, the United States Court of Appeals recently ruled that NMFS did not have the authority to issue a permit for Dall's porpoise since other marine mammals (such as the fur seal) which were not at OSP also were likely to be taken. Unless this decision is overturned or Congress amends the MMPA, NOAA may not be able to renew the general permits because depleted species, including the fur seal and the Steller sea lion which will be proposed for depleted status, might be taken. NMFS has begun the administrative process necessary to consider the reissuance of the general permits, and a range of alternatives is being evaluated. However, some of these alternatives could not be implemented under the Court of Appeals' interpretation of existing law.

2. The Marine Mammal Commission has recommended changes in the MMPA to require development of long-term conservation plans for marine mammals which are adversely affected by human activities.

- Would you support such a change? Why or why not?

ANSWER: The NMFS is already preparing long-term conservation plans for marine mammals that are adversely affected by human activities and we would have no objection to the concept of preparing conservation plans. Recovery/conservation plans for depleted marine mammals that are also listed under the Endangered Species Act (ESA), such as the Hawaiian monk seal, are being developed and implemented by NMFS. A conservation plan for the Pribilof fur seal is currently under development and a plan for the Steller seal lion will be drafted shortly. However, it is important not to duplicate our efforts and we suggest that a recovery plan prepared under the ESA should satisfy any new MMPA requirement.

3. Discussion addressing the incidental take of depleted and unknown status species has centered around fisheries in the North Pacific. Relatively little attention has been focused on the situation in the Atlantic and Gulf of Mexico. I understand, however, that, foreign vessels operating within the U.S. 200-mile zone in the Atlantic have killed about 150 marine mammals in recent months.

    - I would appreciate a detailed explanation of this situation specifying: the nationality and number of vessels involved in the fishery, permits and fishery agreements under which the vessels operate, target species of the fishery, the number and species of marine mammals taken, and a summary of NMFS action to address this problem.

ANSWER: Fishing vessels from GDR, the Netherlands and Poland have taken a total of 160 marine mammals incidental to commercial mackerel fishing operations on the U.S. east coast this year. The attached two tables illustrate the nations involved in the incidental take of marine mammals in the mackerel fishery on the U.S. east coast, and the number and species of marine mammals incidentally taken in the last three years in this fishery. These nations operate under GIFA's and in a fishery for which a TALFF has been authorized. The number of vessels permitted under the Magnuson Act and incidentally taking marine mammals in the east coast fishery are as follows: East Germany 6, Netherlands 12, and Poland 5. However, of greater importance is the number of days fished by each nation and an indication of the incidental take rate of marine mammals per days fishing. The second table and graph indicate that the incidental take rate this year was higher than in previous years.

These incidental takes constitute a clear violation of the MMPA because no foreign nation's vessels are covered by an incidental take general permit which would authorize such takes. The primary reason these permits were not issued (although each nation applied for permits), was the District Court's narrow interpretation of the

NMFS' authority to issue such permits in the Kokechik case. The Court of Appeals upheld that interpretation, and both that Court and the Supreme Court has denied the Government's motions for stays of the injunction which prohibits the issuance of such permits. The NMFS has now notified the U.S. designated agents of fishermen from the GDR, the Netherlands and Poland that any future incidental takings without proper authorization will be prosecuted. This information has been communicated to representatives of each nation with which the United States has a GIFA. We have decided not to prosecute past violations because fishermen may have been led to believe that unpermitted incidental takings would not be prosecuted, thus jeopardizing NOAA's ability to prosecute. Similar notices were also sent to U.S. joint venture fishermen in the mackerel fishery.

- Which domestic fisheries in the Atlantic and Gulf of Mexico are likely to take marine mammals?

ANSWER: In the South Atlantic and Gulf of Mexico the only fishery which has been documented to incidentally take marine mammals is the menhaden purse seine fishery. This fishery currently holds a small take exemption under section 101(a)(4) of the MMPA. They report a total taking of 1-5 bottlenose dolphins annually; usually they are released unharmed. An alleged incidental take of bottlenose dolphins in the Gulf of Mexico shrimp trawl fishery remains unsubstantiated, although the potential for taking exists.

Based on the little data available in the Northeast, fisheries incidentally taking marine mammals include the groundfish trawl fishery, and the groundfish gillnet fishery in the Gulf of Maine. That latter fishery also holds a small take exemption for harbor porpoise, harbor seals, grey seals, white-sided dolphin, common dolphin, white-beaked dolphin and pilot whale. Other domestic fisheries possible taking marine mammals include the mackerel gillnet fishery, and the pot fishery for lobster. More detailed information will be available shortly assessments are completed on the proposed issuance of general permits.

- What effort has been made by NMFS to assess the incidental take of marine mammals by domestic fishermen operating in the Atlantic and Gulf of Mexico?

ANSWER: Based on an evaluation of available information, there are few documented incidental take problems on the U.S. east coast and the Gulf of Mexico. NMFS has funded research for several years investigating the interactions between harbor seals and commercial fisheries in the Gulf of Maine. The final report by the investigators will be available for inclusion into the environmental assessment mentioned above.

NOAA Responses To Questions Posed By Senator Kerry, for the Record of the April 13, 1988 Hearing on Reauthorization of the Marine Mammal Protection Act

1. In 1981, the MMPA was amended to require that NOAA undertake and support research into new methods of locating and catching yellowfin tuna without the incidental taking of marine mammals.

   - What research has been done since 1981 to meet these requirements and what were the results?

ANSWER: Between 1980 and 1983, the industry, Hubbs Research Institute, and the NMFS investigated the feasibility of using hydrophones to locate tuna schools not associated with porpoise. The technique did not appear feasible and no further investigation was pursued.

In 1986, the NMFS convened a group of experts to consider alternatives to purse seining on porpoise. The participants considered three general areas of investigation: 1) modification of existing gear, 2) separating tuna from dolphin prior to setting purse seines, and 3) innovative technology.

Gear modifications have contributed to the reduction in porpoise mortality to current levels. The group concluded that use of lights to illuminate the backdown channel in sundown sets was reducing mortality associated with these sets. Additional modifications to the webbing below the porpoise safety panel were identified as a possible area for investigation.

The consensus of the group was that too little was known about the dynamics of the tuna/dolphin bond to expect that methods could be developed to separate the tuna from the dolphins prior to setting a net. The NMFS is continuing to collect data through its observer program that will aid in our understanding of this relationship.

Three innovative technologies were discussed as alternative approaches to purse seining: 1) fish aggregating devices, 2) longline fishing, and 3) use of sonar to locate tuna not associated with dolphins. These were considered as unacceptable alternatives because they created an economic disadvantage for the U.S. fleet. They were either a less efficient method or were cost prohibitive.

The working group concluded there would be little benefit in pursuing alternative methods and that the most productive area of investigation would be modifying existing gear and methods.

2. The Committee recently received a copy of a letter to Dr. Nancy Foster from scientists at the Hubbs Marine Research Center. The purpose of the letter was to request that NOAA consider a proposal for testing alternative methods of catching tuna without setting on dolphin.

   - Is such a proposal a good idea?

ANSWER: Preliminary investigations conducted by the Inter-American Tropical Tuna Commission indicate that using fish aggregating devices does not capture the size of tuna that is sought by the fishing fleets and preferred by the canneries. The IATTC has also expressed concern that concentrating the harvest on small yellowfin tuna will decrease the yield-per-recruit and reduce the overall yield from the yellowfin tuna resource. Unless there is new information available indicating the technique can be modified to select for the large free ranging fish, pursuing this proposal is not a wise use of funds.

   - What are the procedures for dealing with such a request?

ANSWER: Generally, unsolicited proposals are subjected to review by experts in the field. If the review is favorable, the proposal is included in our budgeting process and funded. If the review is unfavorable, the proposal is rejected with an explanation. The investigator may modify and resubmit the proposal.

3. The 1984 amendments to the MMPA required that the NMFS carry out a 5-year research program to assess dolphin stocks which are impacted by the tuna fishery.

   - What research activities are currently underway to meet this requirement?

ANSWER: NMFS has initiated a monitoring program to detect changes in the relative abundance of dolphins that may be adversely affected by the tuna industry that uses data collected by observers on research vessels and U.S. tuna vessels. Surveys using research vessels have been designed to detect an approximate 40% decline in spotted dolphins during a 5-year sampling period. The experimental design involves two vessels transecting the study area for 120 days per year for a minimum of 5 years. To date, two surveys have been completed -- one in 1986 and one in 1987. To utilize data collected by observers on tuna vessels for stock abundance monitoring, NMFS is analyzing sightings data for the purpose of developing a model that can be used to evaluate trends in abundance of ETP dolphins. This work is being done cooperatively with IATTC. In addition, NMFS is analyzing life history material collected by observers on tuna vessels to evaluate the relationship between fishing pressure and changes in the rates of reproduction and growth.

- Are there any preliminary dolphin population estimates? If so what are they and how do they compare with estimates of the optimal sustainable population?

ANSWER: The research vessel surveys and the analysis of dolphin sightings made by observers on tuna vessels were designed to detect trends in relative abundance and were not meant to be used as estimates of absolute abundance. The results of the research vessel surveys are thought to be less biased than those based on tuna vessel observer data. At this time, the "best" population estimates are those provided by Holt and Powers (1982), which are summarized in Smith (1983). Finally, because of the 1984 amendments to the MMPA, we are conducting research on trends in relative abundance, rather than attempting to define the optimal population of dolphins in the ETP. Even if we did, it is doubtful that we could say anything definitive without at least 10-20 years of monitoring data.

4. In 1987, the dolphin mortality resulting from U.S. fleet operations dropped by about 30% from the level of the previous year. In addition, this was the first year in which the U.S. fleet has almost complete observer coverage.

    - Is the drop in mortality with increased observer coverage a coincidence, or an illustration of the need for more observers? Please explain.

ANSWER: NOAA believes that the drop in mortality with increased observer coverage was a coincidence. Regardless of the level of observer coverage, our mortality estimate can be based only on the mortality rates for vessels with observers. If the presence of an observer influenced the conduct of the fishing operations under 100 percent coverage, that same influence would have been present in the observed portion of the trips in 1986 and would have been expanded with the observed kill to account for the unobserved trips. We have no information that indicates that fishermen substantially alter their fishing strategy due to the presence of an observer.

Fishing conditions in 1987 differed from conditions in 1986. The average number of tons of yellowfin caught in sets involving porpoise also declined from nearly 25 tons per set in 1986 to about 19 tons per set in 1987. The mean observed porpoise kill per ton of yellowfin tuna caught in association with porpoise declined from 0.27 porpoise to 0.16 porpoise per ton of yellowfin. The percentage of observed sets which captured porpoise also declined from 94 percent to 81 percent.

Another possible explanation of the drop in kill would be that the vessel owners and operators have renewed their commitment to keeping porpoise mortalities to a minimum after the 1986 experience of reaching the quota. The industry wants to ensure that does not happen again if they can help it.

- I understand that the purpose of the increased coverage was to assess the effectiveness of the observer program. What were the results of that assessment?

ANSWER: The purpose of the increased coverage was to gather data that will allow the NMFS to test alternate methods of estimating the total porpoise kill from a sample of observed trips. A variety of levels of observer coverage and methods of partitioning mortality data will be explored to determine if a change from our current method and 50 percent coverage is desirable. The analysis is scheduled to be completed this summer and any changes to our estimation method will be announced in the fall to be effective January 1, 1989. This schedule was established to allow for use of all the data from 1987 trips (the last was completed April 24, 1988) and eliminate the disruption and confusion that would be caused by changes in mid-year.

5. I understand that most of the porpoises killed by the U.S. tuna industry are taken in "disaster sets".

- Are certain fishermen repeatedly involved in disaster sets?

ANSWER: We have not identified any fishermen who are repeatedly involved in "disaster sets" or "problem sets" as the Porpoise Rescue Foundation terms sets with more than 15 porpoise killed. During the period 1981-1986, sets that killed more than 15 porpoise accounted for about 6 percent of the total sets on porpoise and for 70 percent of the porpoise mortality for the U.S. fleet. The most common contributing factors in these sets were canopies in the net during the backdown procedure, sundown sets, net collapse before and during backdown, and strong currents.

- What are your thoughts on revoking the certificates of inclusion for these fishermen?

ANSWER: The NMFS has carefully examined the performance of individual skippers and developed several options for establishing and enforcing performance standards. As mentioned above, we have not identified any U.S. fishermen who are repeatedly involved in "disaster sets" or "problem sets". Early in 1987, the fishing industry representatives requested that the NMFS postpone action on regulations governing skipper performance so that the industry could attempt to resolve the problem internally. Judging from the reduction in the mortality rate from 1986 to 1987, we believe their effort has been successful. At this time, we do not plan to proceed with rulemaking to establish performance standards for individual skippers. However, we are continuing to watch closely the performance of skippers and, if the present good level of performance is not maintained by the industry's measures, we will take action to ensure that poor skipper performance does not become a problem in the future.

NOAA Responses to Questions Posed by Senator Packwood for the Record of the April 13, Hearing on Reauthorization of the Marine Mammal Protection Act

As I see it, there are 4 aspects of this issue that require our attention: (1) the status of the affected populations of porpoise; (2) the performance by the U.S. fleet; (3) the kill by foreign vessels; and (4) alternative fishing techniques that could obviate the need to set on porpoise and thereby offer a solution to the other problems. I have several questions on each aspect.

1. Status of Porpoise Populations

   a. Do you recommend that Congress amend the Act this year to change the 20,500 quota for the U.S. fleet because of concerns about the status of the affected populations?

ANSWER: Not at this time. Under the Act as amended in 1984, the Secretary can modify quotas or other requirements if he determines on the basis of the best scientific information available that the taking under the general permit is having a significant adverse effect on a marine mammal population stock. However, until we complete the five-year research program, we do not have information to indicate whether quotas or other requirements should be modified.

   b. Do you recommend any amendments, additional funding, or other action regarding research on the status of porpoise populations?

ANSWER: Yes. Additional research is needed to determine if stock structure, as currently designated, constitutes a legitimate management unit. For some species, stock-specific quotas should be pooled, while for other stocks, more stringent management actions may be required. For example, stock-specific quotas for common dolphins may be too conservative, given the likelihood for exchange between neighboring stocks. Conversely, the currently recognized stock of eastern spinner dolphins constitutes a stock that requires strict management. Evaluation of stocks as legitimate management units will be accomplished by contracting experts in the field of population genetics from the academic community.

   c. How does the IATTC's porpoise abundance research program relate to the NMFS' five-year research on trends? How much money is the U.S. contributing to that IATTC program?

ANSWER: They are complementary. Both programs are monitoring changes in the relative abundance of dolphins in the eastern tropical Pacific; neither program is designed to estimate absolute abundance. The Service's monitoring program consists of a three prong approach: (1) using dolphin sightings data collected by observers on research vessels; (2) using dolphin sightings data collected by observers on tuna vessels; and (3) analyzing life history material collected by observers on tuna vessels. The IATTC has taken the lead in applying line transect theory to the analysis of data collected by observers on tuna vessels. The Service, in consultation with the IATTC and the Marine Mammal Commission, has been investigating potential biases and other problems in using these data. The FY1988 budget for the IATTC is $3,303,192 of which $957,256 is allocated to the tuna-dolphin study.

2. Performance by the U.S. Fleet

95 percent of the trips by the U.S. fleet were observed during 1987 and the total kill was 13,992 as compared to 20,692 in 1986.

a. What is the explanation for the decline in total kill? Did the performance improve, the number of sets on porpoise decline, fishing conditions change, or was the more complete sample just more accurate?

ANSWER: The U.S. fleet's performance in fishing on porpoise showed good improvement from 1986 to 1987. In 1986, we attributed the increased mortality to (1) fishermen targeting on more valuable, larger tuna which school with porpoise, (2) larger schools of tuna being found with large herds of porpoise causing an increase in kill per set, and (3) inexperienced skippers. The average number of tons of yellowfin caught in sets involving porpoise declined from nearly 25 tons per set in 1986 to about 19 tons per set in 1987. The percentage of observed porpoise sets also declined from 94 percent in 1986 to 81 percent in 1987, and the number of observed zero mortality porpoise sets increased for 49 percent in 1986 to the normal 60 percent in 1987. Finally, we note that the mean porpoise kill per ton of yellowfin tuna caught in association with porpoise declined from 0.27 porpoise to 0.16 porpoise per ton of yellowfin.

We do not believe that the decline in estimated porpoise mortality between 1986 and 1987 was an artifact of the sampling procedure.

b. Did the nearly total observer coverage reveal any weaknesses in the previous observer coverage based upon a sample of about 1/3 of the trips? Has the observer coverage for 1988 been modified to remedy any such weaknesses? If so, how?

ANSWER: No. The NMFS had redesigned the observer sampling plan to be implemented in January 1987 before the 100 percent placement schedule was announced. That revised estimation method resulted from weaknesses in our procedure that became evident during 1986. The revised estimation procedure calls for sampling 50 percent of the trips (every other trip by each vessel) and maintaining an even level of coverage of the vessels at sea throughout the year. That revised procedure is the way the program is operating in 1988. The full analysis of the 1987 data is not completed but should indicate what changes, if any, will be needed starting in January 1989.

c. What percentage of the U.S. fleet's trips will be covered by the observer program in 1988?

ANSWER: In 1988, 50 percent of the U.S. fleet's trips will carry observers. The NMFS and the Inter-American Tropical Tuna Commission will each place observers on 25 percent of the trips and all the porpoise kill data will be used in the NMFS estimate of the fleet's total kill.

d. Are you confident that the 1988 observer program will provide reliable estimates of the kill by U.S. vessels?

ANSWER: Yes. NMFS scientists reviewed the sampling method with Marine Mammal Commission scientific advisors, the Inter-American Tropical Tuna Commission, and scientific consultants to the industry. We are confident that the procedure for 1988 will provide a reliable, unbiased estimate of the U.S. fleet's kill.

Performance by the U.S. Fleet

The 20,500 quota for the U.S. fleet was based, in part, upon the judgement in 1981 that the U.S. fleet would need to be able to catch up to 92,000 tons of yellowfin tuna by setting on porpoise. The number of U.S. boats fishing in the ETP has declined to 34 since 1981.

e. How many tons of yellowfin tuna has the U.S. fleet caught on porpoise during each of the years 1981 through 1987?

ANSWER: These data are not collected directly but can be estimated from observer records.

Estimated Tons of Yellowfin Tuna Caught on Porpoise
By the U.S. Flag Fleet

Year	Tons	Year	Tons
1981	58,500	1985	86,000
1982	50,600	1986	81,800
1983	29,500	1987	85,300
1984	58,300		

f. Does the smaller, 34-vessel fleet still need to be able to catch up to 92,000 tons of yellowfin tuna on porpoise in order to be economically successful?

ANSWER: The catches of yellowfin tuna on porpoise by the U.S. fleet have approached the 92,000 ton level with a fleet of 34 certificated purse seiners. The fleet's economic health is apparently good at this time. The economic success of the fleet is dependent not only on their total catch of yellowfin tuna but also on all the costs that the vessels incur and the price they receive for their catch.

g. There has been some discussion of developing performance standards for the U.S. fleet with the idea that the skippers whose kill rates are far in excess of the fleet average would be required to improve or stop setting on porpoise. Would you support such a program? Why has such a program not been instituted?

ANSWER: The NMFS carefully examined the performance of individual skippers and developed several options for establishing and enforcing performance standards. Early in 1987, the fishing industry representatives requested that the NMFS postpone action on regulations governing skipper performance so that the industry could attempt to resolve the problem internally. Judging from the reduction in the mortality rate from 1986 to 1987, we believe their effort has been successful. At this time, we do not plan to proceed with rulemaking to establish performance standards for individual skippers. However, we are continuing to watch closely the performance of the skippers and, if the present good level of performance is not maintained by the industry's measures, we will take action to ensure that poor skipper performance does not become a problem in the future.

3. Foreign Kill

The interim final regulations on tuna imports were published March 18, 1988, to implement the 1984 amendments. They do not require "comparable" kill rates of foreign fleets until 1991.

a. Would any nation's fleet be "comparable" if the standard were effective immediately?

ANSWER: We do not know if any nation's fleet is currently "comparable" to the U.S. standard, as we do not have porpoise mortality data for the fleets of individual nations. The submission of these data for 1986 and 1987 as required in the interim final regulations published on March 18, 1988 will provide the first data available to the U.S. to assess the current performance of individual nations. However, based on IATTC aggregate data, we assume most nations' kill rates are substantially higher and therefore would not be considered comparable based on standards set for 1991.

b. Did you advise other governments of the amendments when they were enacted in 1984? If so, they've had nearly 4 years to get their rates down by using gear and techniques that our fishermen developed and have been using. Why do you believe that they will do better in the next three years?

ANSWER: We first notified all nations purse seining in the ETP and holding valid findings of conformance in February 1985 that the law had been amended to require that they have both a comparable regulatory program and kill rate. We also indicated that we would be promulgating new regulations and would notify them when they were published. We also informed them that the old findings would remain in effect until the new regulations were issued. We informed Mexico and Vanuatu of the new law in 1986 when they applied for new findings of conformance.

An indication of their concern over our regulations is shown in the improved rate of participation in IATTC's observer program. Non-U.S. participation increased from about 8 percent in 1985 to 25 percent in 1986.

c. Did representatives of any nation tell you that the "comparability" standard could be satisfied if it were effective in 1991, but not in 1988?

ANSWER: No. We were advised by the IATTC, however, that it was unlikely that the majority of nations could meet the U.S. standard in 1988 based on a review of the observer data for the international fleet.

d. The Federal Register notice says that Mexico exports to the U.S. only 3 percent of the tuna it catches in the ETP. Obviously, they have found other markets for the rest of the tuna. Do you expect Mexico to increase its exports to the U.S. if we don't embargo them? Why would it not be best to tell them right now, when they have the incentive to enter our markets, that they must meet our standards?

ANSWER: Yes, we would expect Mexico to increase its exports to the U.S. For instance, yellowfin tuna imports from Mexico increased from 3 percent in 1986 to 19 percent in 1987. Mexico has the incentive to meet U.S. standards according to Secretary of Fisheries Ojeda, in an April 7, 1988 letter to NOAA Under Secretary Evans, in which he reaffirms Mexico's concern for marine mammals and describes the progress his country has made in enacting laws and regulations to protect porpoise taken with tuna. Mexico has been told that it must have a comparable program in place this year. However, if we said that its current kill rate, which would be judged on the most recent data (1986 and 1987) had to be within 25 percent of ours, we would probably have to prohibit imports. They, therefore, would not even have the incentive to implement a comparable program. They now have notice that they must have a program, a declining trend in 1988 and 1989, and a comparable kill rate by the end of 1990.

e. Please provide for each country whose vessels catch tuna on porpoise in the ETP the following information for each of the years 1981 through 1987: (1) the total catch of yellowfin tuna from porpoise and non-porpoise sets; (2) the tonnage and percentage of its total catch of yellowfin tuna that was taken in sets on porpoise; (3) the number of vessels in its fleet; (4) the percentage of its total yellowfin catch (from porpoise and non-porpoise sets) that is exported to the U.S.; and (5) the percentage of its total yellowfin catch (from porpoise and non-porpoise sets) that is exported to nations other than the U.S.

ANSWER: Attached are two tables that present: (1) the total catch of yellowfin tuna; and (2) the number of vessels that are capable of fishing on porpoise (400 tons carrying capacity or greater). Complete data request for the tonnage and percentage of tuna take on porpoise, percent of total yellowfin exported to the U.S., and the percentage to total yellowfin catch exported to nations other than the U.S. are not presently available to us by country.

f. Do all of the nations setting on porpoise in the ETP participate in the IATTC porpoise program?

ANSWER: Yes, currently all nations setting on porpoise in the ETP participate in the IATTC porpoise program. These nations include the United States, Ecuador, El Salvador, Mexico, Panama, Spain, Venezuela and Vanuatu.

g. Why do the regulations not require that foreign nations participate in the IATTC observer program or an equivalent international program in which we participate?

ANSWER: The NMFS determined that it could not discriminate against any nation who did not wish to participate in the IATTC observer program or equivalent international program as the U.S. has retained its right to continue a separate and more stringent program in addition to participating in the IATTC program.

TOTAL CATCH (IN SHORT TONS) OF YELLOWFIN TUNA FROM PURSE SEINE VESSELS FISHING IN THE EASTERN PACIFIC OCEAN

				YEAR			
COUNTRY	1981	1982	1983	1984	1985	1986	1987\1
Bermuda	*	*	*	/2	/2	/2	/2
Canada	*	*	*	*	/2	/2	/2
Caymen Is.	2,375	2,917	*	*	*	*	*
Costa Rica	3,599	146	*	3,312	*	*	*
Ecuador	8,783	6,416	8,613	12,216	10,476	19,100	20,500
El Salvador	*	*	/2	/2	/2	*	*
Mexico	44,368	20,422	20,170	56,999	80,995	102,900	94,800
N.Antilles	*	/2	/2	/2	/2	/2	/2
Panama	8,031	*	*	*	*	*	*
Peru	699	30	1,058	156	1	*	-
Portugal	*	/2	/2	/2	/2	/2	/2
Spain	7,012	1,061	/2	*	*	-	*
U.S.	90,991	71,408	45,114	55,040	79,184	69,900	96,100
USSR	*	*	/2	*	-	*	-
Vanuatu	/2	/2	/2	/2	*	*	*
Venezuela	7,218	*	9,023	11,315	23,513	33,200	39,700
Total of *	3,405	15,191	5,406	2,810	19,021	26,200	21,900

/1 Preliminary data
/2 No flag vessels of that country reported in ETP during year
- Data not available
* Data on individual country not available due to IATTC confidentiality policy. Data listed collectively with other nations having small fleets.

TOTAL NUMBER OF PURSE SEINE VESSELS OF OVER 400 TONS CARRYING CAPACITY THAT FISH FOR YELLOWFIN TUNA IN THE ETP

				YEAR			
COUNTRY	1981	1982	1983	1984	1985	1986	1987/1
Bermuda	0	0	0	0	0	0	0
Canada	0	0	0	0	0	0	0
Caymen Is.	5	2	1	1	0	0	0
Costa Rica	2	2	1	1	1	1	0
Ecuador	3	2	4	4	4	4	4
El Salvador	2	2	NA	NA	NA	1	2
Mexico	35	36	38	42	50	41	53
N. Antilles	1	0	0	0	0	0	0
Panama	7	4	4	1	3	3	5
Peru	0	0	0	0	0	0	0
Portugal	1	0	0	0	0	0	0
Spain	5	3	NA	1	1	2	1
U.S.	97	95	66	43	41	38	39
U.S.S.R.	1	2	NA	0	0	0	0
Vanuatu	0	0	0	0	2	3	5
Venezuela	6	5	7	11	13	15	24

/1 - Preliminary data
NA - Data not Available

SOURCE: IATTC

h. How will you evaluate the reliability of a foreign nation's reported kill rate if its vessels are not covered by the IATTC program?

ANSWER: A very careful review of the program will be made by NMFS and other qualified scientists before the nations program will be approved. We would review the structure of the program, including the qualifications of the observers, the kind and extent of the training of the observers, and the size and representativeness of the observer sample. Certain data (i.e. number of vessels, tons of tuna, etc.) would be available to evaluate the nations reported kill rate compared to their original submission of 1986 and 1987 data and compared to the rates of other nations who are participating in the IATTC program. As a practical matter, there is little evidence to suggest any nation will have the capability to establish an approvable independent program.

i. At what levels of government have discussions of this issue taken place? Has the Department of Commerce recommended that the Department of State bring it to the attention of high-level officials of the foreign governments involved?

ANSWER: The U.S. Departments of Commerce and State have maintained a continuing dialogue with officials of foreign nations concerning the reduction of porpoise mortality associated with tuna fishing at annual IATTC meetings. The Assistant Administrator for Fisheries also has maintained the tuna porpoise issue as a priority agenda item in discussions with the Mexican Secretary of Fisheries during MEXUS-Pacifico meetings since 1985.

The Department of Commerce has provided instructions and sent pertinent documents to foreign governments through the State Department to embassies and consulates in all countries fishing tuna in the ETP.

j. Our fleet must abide by subquotas on individual stocks within the overall quota of 20,500. The regulations do not appear to require that a foreign government establish subquotas or a total quota for its fleet in order to gain approval of its regulatory program. Why not?

ANSWER: The legislative history for the 1984 amendments to the MMPA, while giving explicit instructions on various aspects of comparability, did not give any indication that quotas for individual nations were anticipated. We think that separate subquotas for each country would be too complex and unworkable.

k. **Have you considered a scheme that would require that nations set quotas for their fleets and require that their tuna be embargoed if the quotas are exceeded?**

ANSWER: Yes, we have discussed schemes that would require nations to set quotas and require embargoes if quotas are exceeded with the IATTC and others. As a result of these discussions, we have concluded that:

(1) Some nations, regardless of the size of their fleets would claim a quota of 20,500 as "comparable" to the U.S.;

(2) Most nations would strongly object to the U.S. setting quotas unilaterally without an opportunity to participate in the determination of stock sizes, quota structure and quotas setting; and

(3) Technically it would be extremely complex to set quotas for individual nations with varying size fleets, especially since their fleet sizes change.

In addition, we do not think that the Act would accommodate an overall quota for each country because the Act requires the use of a kill rate test. A kill rate test and a quota would not mesh because that would entail two different numerical tests.

We believe that the best solution to controlling porpoise mortality is through international cooperation. During the plenipotentiaries meeting on the Costa Rica Agreement it was agreed, in principle, that tuna and porpoise conservation and management should be considered in the IATTC or its successor organization under a new ETP treaty. We have continued to support this concept through our participation in the IATTC.

4. Alternative Fishing Techniques

a. **What has been done since the enactment of the 1984 amendments to implement the provisions calling for research into alternative methods of fishing? Have requests for proposals been published? How much money has been made available for such research? How many proposals have been submitted, and what action has been taken on each proposal?**

ANSWER: In 1986, the NMFS convened a group of experts to consider alternatives to purse seining on porpoise. The participants considered three general areas of investigation: (1) modification of existing gear, (2) separating tuna from dolphin prior to setting purse seines, and (3) innovative technology.

Gear modifications have contributed to the reduction in porpoise mortality to current levels. The group concluded that use of high intensity lights to illuminate the backdown channel in sundown sets was reducing mortality associated with these sets. Required use of these lights was included in the U.S. fleet's regulations in 1986. Review is underway to quantify the benefit. Additional modifications to the webbing below the porpoise safety panel were identified as a possible area for future investigation.

The consensus of the group was that too little was known about the dynamics of the tuna/dolphin bond to expect that methods could be developed to separate the tuna from the dolphins prior to setting a net. The NMFS is continuing to collect data through its observer program that will aid in our understanding of this relationship.

Three innovative technologies were discussed as alternative approaches to purse seining: (1) fish aggregating devices (FADs), (2) longline fishing, and (3) use of sonar to locate tuna not associated with dolphins. These were considered as unacceptable alternatives because they created an economic disadvantage for the U.S. fleet. They were less efficient or cost prohibitive. The working group concluded there would be little benefit in pursuing alternative methods and that the most productive area of investigation would be modifying existing gear and methods.

No requests for proposals have been published based on the negative findings of the working group. No money has been allocated to alternative gear research. NMFS Budget has been allocated to estimating mortalities and monitoring trends in dolphin populations.

One proposal for additional work with FADs was received in March 1988. NMFS is evaluating the proposal.

b. Would you support the convening of a task force of experts in a wide variety of fields to explore research and development opportunities relating to alternative fishing techniques that do not involve sets on porpoise?

ANSWER: Yes. We are willing to listen to and pursue innovative ideas that have a reasonable expectation of reducing dolphin mortality without jeopardizing the U.S. tuna Fleet.

NOAA Responses to Questions Posed By Senators Stevens and Packwood for the Record of the April 13, 1988 Hearing on Reauthorization of the Marine Mammal Protection Act

1. Please provide: (1) your recommendations for amendments to deal with the incidental take by U.S. fishermen of depleted and unknown status species; (2) a list of the fisheries that would be jeopardized if the Act were not so amended, with information on which species of marine mammals are taken and the estimated number taken in each such fishery; and (3) your recommendations for any other amendments.

ANSWER: (1) The fishing industry and the conservation community have formed a working group to address the problem of incidental take of depleted or unknown status species. The working group has just completed a proposal to provide for a three-year limited exemption for domestic commercial fishermen with provisions for monitoring and reporting. We are currently evaluating the proposal and will be providing our views and recommended amendments in the near future. We believe that any amendment to the MMPA should include provisions for foreign fishermen.

(2) NMFS is currently working on both a status report on marine mammals stocks impacted by commercial fishing operations and an environmental and economic assessment of the commercial fisheries involved. The marine mammal status report is scheduled to be completed in June, and the environmental and economic impact statement in July. Preliminary data on the involved U.S. west coast fisheries and impacted marine mammals species provided at a public scoping meeting held earlier last month are attached (Attachments 1 and 2). Under current interpretation of the Act, NOAA will not be able to issue either general permits or small take authorizations to most of these west coast fisheries for 1989. Information on reasonable estimates on the number of marine mammals incidentally taken in commercial fishing operations can be found in the appropriate table of our latest annual report.

(3) We are currently working with other Federal agencies on drafting amendments to Sections 105, 106, and 107 to improve enforcement of the Act. The amendments cover the civil penalty process (e.g. increasing the maximum civil penalty, providing for administrative subpoenas), forfeiture procedures, payment of storage costs and rewards, and placing maritime liens on vessels used in violation of the Act. When the amendments are drafted, we will provide them to you.

ATTACHMENT 1

Commercial Fisheries Identified for Consideration in the DEIS on the Incidental Take of Marine Mammals in Commercial Fisheries.

Trawl Fishery (Category 1)

- Pollock
- Hake
- Cod
- Pacific Ocean Perch
- Rock fish
- Groundfish
- Flounders
- Shrimp

Encircling Gear: Purse Seining Not Involving The Intentional Taking of Marine Mammals (Category 3)

- Salmon
- Anchovies
- Mackerel
- Squid
- Herring
- Tuna
- Other wet fish

Stationary Gear (Category 4)

- Pots - Crab
  - Black cod

- fishpens - Salmon
  - Herring

Other (Category 5)

- Hook and Line - Yellowfin tuna
  - Big eye tuna
  - Snapper
  - Salmon trolling
- Longline - Halibut
  - Black cod
  - Ground fish

- gillnets - Salmon
  - California Halibut
  - Yellow tail
  - White sea bass
  - Croaker
  - Swordfish
  - Shark
  - Black cod

Commercial Passenger Fishing Vessels (Category 6)

ATTACHMENT 2

MARINE MAMMAL SPECIES WHICH INTERACT WITH COMMERCIAL FISHING OPERATIONS ON THE U.S. WEST COAST

California sea lion

northern fur seal

northern sea lion

bearded seal

harbor porpoise

Dall's porpoise

common dolphin

grampus

killer whale

gray whale

harbor seal

elephant seal

ringed seal

largha seal

pilot whale

whitesided dolphin

bottlenosed dolphin

right whale dolphin

beluga whale

minke whale

NOAA Responses to Questions Posed by Senator Stevens for the Record of the April 13, 1988 Hearing on Reauthorization of the Marine Mammal Protection Act

1. NMFS has used its cooperative management authority under the Act with great success in the management of bowhead whales. I'd like to see this approach and achievement carried over to other species under NMFS' jurisdiction. Are you willing to explore the possibility of entering into cooperative management agreements for other species under NMFS' jurisdiction with the State of Alaska, affected Natives, and other user groups?

ANSWER: NMFS strongly supports the concept of increasing cooperation with all user groups in the management of marine mammal species. We continue to encourage the State to seek return of management authority for species under NMFS jurisdiction and would be happy to work with State officials on interim agreements in this area. NMFS is exploring the possibility of a cooperative agreement with Aleut residents of the Pribilof Islands on management of the fur seal subsistence harvest. Aleut residents are currently assisting in harvest management operations as NMFS employees or under contract.

2. In your discussion of the Dall's porpoise issue, you state that the absence of a permit to fish in our zone, the Japanese may fish in areas where they will take more North American-origin salmon.

    a. Will you recommend that the Secretary of Commerce certify Japan under the Pelly Amendment if they fish in violation of the INPFC rules this summer?

ANSWER: Japan's intentions regarding the high seas mothership salmon fleet for this summer are not yet known. They will depend primarily on the status of Kokechik Fishermen's Association v. Secretary of Commerce which precludes issuance of the marine mammal incidental take permit required for the Japanese Mothership Salmon Fishing Federation to operate in the U.S. Exclusive Economic Zone (EEZ). On June 9, 1988, the Supreme Court denied a motion to stay the injunction in that case, ending any prospect of relief for the 1988 fishing season. If these fishermen cannot fish in the EEZ, Japan may charge that the United States has abrogated its INPFC obligations. Under these circumstances, we would want to consider Pelly Amendment certification in light of the above mentioned litigation, the INPFC and its conservation program, and the nature and extent of the relevant Japanese fishing.

    b. Will you exercise our jurisdiction over salmon, as asserted in the Magnuson Act and recognized by Japan, if Japanese vessels fish in areas where they will catch unacceptably large numbers of North American salmon?

ANSWER: The United States has fisheries jursidiction over salmon and other anadromous species originating in our rivers and streams in all areas except the territorial seas or fishery conservation zones or their equivalents of foreign countries. The exercise of that jurisdiction would rely on several enforcement considerations. First, enforcement at sea of our jurisdiction over anadromous species would rely on the ability to make real-time or near real-time identification of the country of origin of harvested fish. We are looking into field analytical techniques that would allow enforcement officials to make these determinations, but this continuing work is difficult because the more reliable methods involve sophisticated laboratory equipment and environments.

Senator KERRY. Thank you very much, Mr. Douglas.

Let me just say for the record that each of your full testimonies which have been submitted to the committee will be placed in the record in full as if read.

Mr. Edwards.

STATEMENT OF GARY EDWARDS, ASSISTANT DIRECTOR FOR FISHERIES, UNITED STATES FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

Mr. EDWARDS. Mr. Chairman, I am Gary Edwards, Assistant Director for Fisheries for the U.S. Fish and Wildlife Service.

As you requested, I will summarize my remarks to keep my presentation brief.

Within the Department of the Interior, the Fish and Wildlife Service is responsible for the stewardship of marine mammals under its jurisdiction. This includes polar bears, marine and sea otters, walruses, dugongs and three species of manatees. We are also responsible for enforcing the moratorium on taking and importing marine mammals and marine mammal products.

There have been no significant changes in the status of species under the jurisdiction of the service for several years. The West Indian manatee, the largest stock of which is the Florida population of about 1200 animals, remains stable. However, with both increased development and growing human population in the coastal areas of Florida, continued conflicts between people and manatees will inevitably threaten this remaining population.

The southern sea otter, which consisted of only about 50 individuals in the 1930s, has grown to occupy more than 10 percent of its historic range and now numbers more than 1400 animals. Under specific legislation enacted in 1986, efforts have been initiated to reintroduce up to 250 sea otters from the southern populations to waters surrounding St. Nicholas Island in California.

All three marine mammal species under service jurisdiction in Alaska are currently believed to be healthy. However, some stocks could be adversely impacted due to unregulated harvests by Alaskan natives for subsistence and handicraft purposes. As you know, the service presently lacks the authority to manage such harvests before a species or discrete stock is found to be depleted.

The Pacific walrus, the population of which is shared with the Soviet Union, numbered about 234,000 animals in 1985, probably near a historic high. However, continuation of current high levels of mortality associated with harvests in the Soviet Union and

Alaska should be monitored closely, particularly if the population should begin to decline significantly.

The polar bear population in Alaska is shared with both Canada and the Soviet Union and numbers about 5,000 animals. This population is probably stable for the moment, with native take averaging approximately 100 animals annually. However, harvests of females is near or at a maximum sustained level. In addition, the growing use of aircraft to locate polar bears on the Arctic ice pack increases the exposure of these populations to harvest.

A growing population of sea otter in Alaska, estimated to number from 100,000 to 150,000 individuals, has become reestablished in most of this species' historic range. With this population growth and range expansion have come increasing conflicts with commercial fisheries. In addition, there are no indications that the taking for creating and selling authentic native articles of clothing has increased, causing concern that species specific colonies may be adversely impacted.

I am pleased to report that good progress has been made in implementing recent amendments of the Act. A joint Fish and Wildlife Service/National Marine Fisheries Service proposal to modify existing regulations governing the taking of small numbers of depleted marine mammals incidental to specific activities other than commercial fishing was published in the Federal Register on March 15. The amendments enacted in 1981 authorized the Secretary of the Interior to prescribe regulations requiring the marking and reporting of marine mammals taken by natives residing in coastal Alaska. Because the State of Alaska was considering seeking of management authority, development of these regulations was postponed.

As the importance of the harvest and the biologic information that would be provided grew and the likelihood of transfer and management diminished, development of regulations to implement the marking and reporting provisions was initiated in 1985. A final rule will be published shortly in the Federal Register and will take effect 90 days after publication.

The 1981 amendments also authorized the Secretary to allow the incidental taking of small numbers of nondepleted marine mammals by citizens of the United States while engaging in commercial fishing operations. This proposed rule was published in yesterday's Federal Register.

An array of issues regarding the act have been discussed recently by the many management, regulatory, user and other interest groups involved or affected. Possible solutions to these many issues range from technical corrections to clarifications that facilitate administration within existing statutory framework or even fundamental shifts in that framework.

As most of these issues address longstanding concerns on which no consensus has been achieved, one approach at this juncture would simply be to reauthorize the funding provisions of the Act. This would allow continuation of existing marine mammal programs while providing sufficient time to deliberate and reach agreement on possible solutions.

In this context, Mr. Chairman, the service recommends that the act's current authorization of appropriations be extended two years through fiscal year 1990. Although appropriations for service activities conducted under authority of the Act have increased recently, the current $3 million annual authorization level should be adequate.

Mr. Chairman, this concludes my testimony. I would be pleased to answer any questions you may have.

[The statement follows:]

Statement of Gary Edwards, Assistant Director for Fisheries, U.S. Fish and Wildlife Service, Department of the Interior

Mr. Chairman, I appreciate the opportunity to appear here today to discuss the Marine Mammal Protection Act of 1972. I will provide an overview of U.S. Fish and Wildlife Service (Service) activities concerning marine mammal conservation, management, research, and interagency coordination; information about the status of marine mammals under the jurisdiction of the Service; and Service efforts to implement recent amendments to the Act.

OVERVIEW OF SERVICE INVOLVEMENT WITH MARINE MAMMALS

As you are aware, the Act establishes a Federal responsibility for the conservation of marine mammals. Under the Act, the Secretary of the Interior, through the Service, is responsible for protecting and managing polar bears, marine and sea otters, walruses, dugongs, and three species of manatees. The Secretary of Commerce, through the National Marine Fisheries Service, is responsible for all other marine mammals, including whales, porpoises, seals, and sea lions.

In general, the Act establishes a moratorium on the taking and importation of marine mammals, but contains procedures for waiving this moratorium under certain circumstances. The statute exempts from the moratorium on taking Alaskan Natives who take marine mammals for subsistence or for creating and selling authentic native handicrafts and clothing as long as such taking is accomplished in a non-wasteful manner. A procedure for the transfer of marine mammal management authority back to the States is also provided for by the Act. The Act also authorizes the Secretaries of Commerce and the Interior to allow the incidental, but not intentional, take of small numbers of marine mammals during commercial fishing operations and in association with specified activities other than commercial fishing.

Within the Department of the Interior, the U.S. Fish and Wildlife Service is responsible for managing marine mammals under its jurisdiction and for enforcing the moratorium on taking and importing marine mammals and marine mammal products. In addition to a substantial research program, the Service undertakes a number of management activities in carrying out this responsibility. Management activities required to implement the Act include evaluation and processing of requests for waivers of the moratorium and for transfer of management authority to the States, issuance of permits, population and harvest monitoring and assessment, and enforcement of provisions of the Act. The Service also advises the Department's Outer Continental Shelf Development Program and reviews measures proposed to protect marine mammals during offshore oil and gas exploration and development. Finally, the Service participates in the development of international agreements and in international activities related to marine mammals.

Service funding authorized under the Marine Mammal Protection Act for these management activities has gradually increased over the past 4 years to more than $1,000,000 annually. During the same period, research funded under the Act's authority has increased four-fold to more than $1,500,000 annually.

Under authority of the Endangered Species Act of 1973, the Service lists marine mammals under its jurisdiction as endangered or threatened when appropriate. Other Endangered Species Act responsibilities related to marine mammals, such as consultation with Federal agencies as required by section 7 of that Act, are also undertaken. Service funding for marine mammals under authority of the Endangered Species Act has more than doubled in the past 6 years to more than $1,500,000 annually.

In conducting these activities, the Service maintains a close working relationship with the Marine Mammal Commission and its Committee of Scientific Advisors, the National Marine Fisheries Service, the Minerals Management Service, and other involved Federal agencies. The Service also strives to maintain close contacts with affected States and Indian Tribes, Alaskan Native organizations, conservation organizations, and other entities regarding marine mammal issues of common interest.

Details of Service marine mammal activities are presented in the attached 1986 Annual Report submitted to the Congress earlier this year.

STATUS OF MARINE MAMMALS UNDER U.S. FISH AND WILDLIFE SERVICE JURISDICTION

As noted in recent Service annual reports on Administration of the Marine Mammal Protection Act, there have been no significant changes in the status of species under the jurisdiction of the Service for several years. All three species of manatees, the dugong, the marine otter, and the southern sea otter are listed as endangered or threatened under the Endangered Species Act and, therefore, are considered depleted under the Marine Mammal Protection Act.

While the world population of dugongs is approximately 30,000 animals, they are widely distributed from East Africa to the South Pacific and occur as a number of isolated and vulnerable populations. The population in the Republic of Palau, a former U.S. Trust Territory in the South Pacific, appears to have remained stable at about 50 animals over the past decade. However, this remnant population is very vulnerable and is considered the most endangered marine mammal under the jurisdiction of the Service.

The West Indian manatee, the largest stock of which is the Florida population consisting of about 1,200 animals, also remains stable. However, with both increased development and growing populations in the coastal areas of Florida and adjacent States, more conflicts between people and manatees will inevitably threaten this remaining population and habitats critical to its survival.

The southern sea otter is classified as a threatened species under the Endangered Species Act. This population, which consisted of only about 50 individuals in the 1930s, has grown to occupy more than 10 percent of its historic range and now numbers more than 1,400 animals based on recent surveys. State regulation of gillnets used in commercial fishing within the southern sea otter's range appears to have relieved a significant source of mortality so that we are cautiously optimistic that this population will continue to grow. Under special legislation enacted in 1986, efforts have been initiated to reintroduce up to 250 sea otters from this southern population to waters surrounding San Nicolas Island located about 65 miles off the coast of Southern California. Establishment of this second population is intended to implement a primary recovery action for this species and to obtain information for assessing translocation and containment techniques, population dynamics, ecological relationships in the near-shore community, and effects on the donor population.

All three marine mammal species under Service jurisdiction in Alaska are considered to be non-depleted under the Act and are currently believed to be healthy populations. However, some stocks may be adversely impacted due to unregulated harvest by Alaskan Natives for subsistence and handicraft purposes.

As you know, the Service presently lacks the authority to manage such harvests before a species or discrete stock is found to be depleted.

The Pacific walrus, the population of which is shared with the Soviet Union, numbered about 234,000 animals in 1985, an estimate based on a joint Soviet-United States population survey. This population level is probably near an historic high. However, continuation of current high levels of mortality associated with harvests in the Soviet Union and Alaska, estimated to total 10,000 to 18,000 retrieved and unretrieved animals annually, should be monitored closely, particularly if the population should begin to decline significantly.

The polar bear population in Alaska is shared with both Canada and the Soviet Union and numbers about 5,000 animals. This population is probably stable for the moment with Native take averaging approximately 100 animals annually. However, harvest of females is approaching, if it is not already at, the maximum sustainable level. In addition, the growing use of aircraft to locate polar bears on the Arctic ice pack increases the exposure of these populations to harvest.

A growing population of sea otters in Alaska, estimated to number from 100,000 to 150,000 individuals, has become reestablished in most of this species' historic range. With this population growth and range expansion have come increasing conflicts with commercial fisheries. In addition, there are indications that the taking for the purpose of creating and selling authentic Native articles of clothing has increased, which is causing concern that specific colonies may be adversely impacted.

IMPLEMENTATION OF RECENT AMENDEMENTS OF THE MARINE MAMMAL PROTECTION ACT

I am pleased to report that good progress has been made in implementing recent amendments of the Act. A joint Fish and Wildlife Service/National Marine Fisheries Service proposal to modify existing regulations governing the taking of small numbers of depleted marine mammals incidental to specific activities other than commercial fishing was published in the FEDERAL REGISTER on March 15. The proposed rule would implement the 1986 amendments to the Act that authorized such incidental taking and changed the findings that must be made to allow such taking. In addition, the proposed rule would implement an amendment to the Endangered Species Act enacted in the same legislation which clarifies the relationship of incidental take approvals under both Act. Public comment on the proposed regulations will be accepted through May 16. A final decision on the proposed rule is expected this fall.

Development of regulations to implement two earlier amendments, work on which had been suspended, has also been reinitiated. One 1981 amendment authorized the Secretary of the Interior to prescribe regulations requiring the marking and reporting of marine mammals taken by Natives residing in coastal Alaska for subsistence purposes or for creating and selling authentic Native handicrafts. Because the State of Alaska was considering seeking transfer of management authority for marine mammals, regulations to implement the marking and reporting provisions appeared to be unnecessary and their development was postponed. As the importance of the harvest and biological information that would be provided grew and the likelihood of transfer of management authority diminished, development of regulations to implement the marking and reporting provisions was initiated in 1985. A final rule will be published shortly in the FEDERAL REGISTER and will take effect 90 days after publication.

The 1981 amendments also authorized the Secretary to allow the incidental taking of small numbers of non-depleted marine mammals by citizens of the United States while engaging in commercial fishing operations. Presently, the principal conflicts between commercial fishing and marine mammals under the jurisdiction of the U.S. Fish and Wildlife service involve sea otters in Alaska and, to a lesser extent, Pacific walruses. As this conflict become obvious in the mid-1980s, the Service began developing procedural rules that closely parallel the policy adopted in 1983 by the National Marine Fisheries Service. Those proposed rules were published in yesterday's FEDERAL REGISTER; public comment is solicited and will be accepted through June 13, 1988.

IMPROVING THE EFFECTIVENESS OF FEDERAL MARINE MAMMAL PROGRAMS

An array of issues regarding the Act have been discussed recently by the many management, regulatory, user, and other interest groups involved or affected. Possible solutions to these many issues range from technical corrections to clarifications that facilitate administration within the existing statutory framework or even fundamental shifts in that framework. As most of these issues address long-standing concerns for which no consensus has been achieved, one approach at this juncture would simply be to reauthorize the funding provisions of the Act. This would allow continuation of existing marine mammal programs while providing sufficient time to deliberate and reach agreement on possible solutions.

In this context, Mr. Chairman, the Service recommends that the Act's current authorization of appropriations be extended 2 years, through fiscal year 1990. Although appropriations for Service activities conducted under authority of the Act have increased recently, the current $3 million annual authorization level should be adequate.

Mr. Chairman, this concludes my prepared testimony. I would be pleased to answer any questions you may have.

[The following information was subsequently received for the record:]

QUESTIONS OF SENATOR STEVENS AND THE ANSWERS

1. Please provide: (1) your recommendations for amendments to deal with the incidental take by U.S. fishermen of depleted and unknown status species; (2) a list of the fisheries that would be jeopardized if the Act were not so amended, with information on which species of marine mammals are taken and the estimated number taken in each such fishery; and (3) your recommendations for any other amendments.

Response

(1) The non-depleted marine mammals under the jurisdiction of the U.S. Fish and Wildlife Service are within their optimal sustainable population ranges and no depleted species under Service jurisdiction (i.e., manatees, Southern sea otter, marine otter, and dugong) are presently subject to taking incidental to commercial fishing operations. Hence, the Service is not contemplating an amendment to address this issue.

(2) The Service is not aware at present of any depleted or status unknown marine mammal species under its jurisdiction that might be subject to taking incidental to commercial fishing operations. Potential conflicts between the Southern sea otter and halibut gill trammel net fisheries have been resolved in favor of the sea otter by State of California prohibitions on the use of such nets within this subspecies' range.

(3) As stated in testimony at the hearing on April 13, 1988, the Service is not proposing any amendments to the Marine Mammal Protection Act at this time. However, a number of proposals to amend the Act exist. Since most address longstanding issues and concerns for which no consensus has been achieved, the Service recommends that the Act be reauthorized without amendment for a 2-year period. This would allow for the continuation of existing marine mammal programs while providing limited, but adequate time for all interested parties to reach agreement on potential amendments.

2. Please provide for the record the amount of money spent by FWS on marine mammal research and management (including enforcement) each year since 1984 in Alaska.

Response

U.S. Fish and Wildlife Service Expenditures on Marine Mammals In Alaska ($000)

Activity	Fiscal Year FY 1984	FY 1985	FY 1986	FY 1987
Research and Development	$ 394	$ 311	$ 984	$1,160
Management	240	372*	260	260
Law Enforcement	229	258	285	248
Totals	$ 863	$ 941	$1,529	$1,668

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* Includes $132,000 for walrus survey conducted every 5 years.

3. You mention the expanded use of aircraft to locate polar bears on the Arctic pack ice. Who are the people using the aircraft?

Response

Alaskan Natives are reported to be using aircraft to facilitate the harvest of polar bears. This practice is not illegal as long as the hunter is in compliance with the Airborne Hunting Act (16 U.S.C. 742j-1). Due to the remoteness of the pack ice inhabited by polar bears, information on the extent to which aircraft are used to facilitate hunting and who is doing it is largely anecdotal. For several years, the Service has received reports of instances where Natives are allegedly using aircraft to locate polar bears and then landing and shooting them. Most of these reports came from other Natives. One instance was documented near Kotzebue in 1987 where several Natives using aircraft killed two polar bears. A similar instance was reported by local Natives in the same area in 1988.

4. You mention that a final decision on the proposed rule allowing incidental take of marine mammals in the course of OCS activities is expected "next fall". Does that mean fall of 1988 or 1989?

Response

In the corrected copy of the Service's testimony presented during the April 13, 1988, hearing, the word "next" was changed to "this" to clarify the present expectation that a final rule will be published by the fall of 1988.

5. Under section 1382(c), the Secretary has the authority to enter into cooperative agreements for management of marine mammals. This provision has been used successfully in the management of Pacific Walrus which you indicated is near its historic high in population. I would like to see your cooperative management efforts expanded to include polar bear and sea otters. My staff has discussed this issue with Assistant Secretary Horn, and he has indicated his support of cooperative management in principle. In addition, the Marine Mammal Commission will soon submit a recommendation for increased cooperative management efforts in Alaska. Is the Fish and Wildlife Service willing to sit down with the State of Alaska, affected Native groups, and other users to develop cooperative management regimes for polar bears and sea otters?

Response

The Fish and Wildlife Service welcomes the opportunity to involve the State of Alaska, affected Native groups, and other users in the development of management regimes for the polar bear, sea otter and walrus, thus offering the widest possible consideration of views and concerns.

Sections 107 (a) and (b), 109(k), and 112(c) of the Act provide broad authority for the Service, acting for the Secretary, to enter into cooperative arrangements with other Federal agencies, States, public or private institutions, and other persons to carry out the purposes of Title I of the Marine Mammal Protection Act.

The Service is presently involved in several such cooperative ventures. Along with the Alaska Department of Fish and Game and the Eskimo Walrus Commission, the Service agreed, in a 1987 Memorandum of Agreement, to cooperate in the development and implementation of management plans for Pacific walrus and conservation plans for walrus haul-out areas.

The Service has also provided technical assistance, in the form of biological information, to the Fish and Game Committee of Alaska's North Slope Borough in support of its efforts to develop a Polar Bear Management Agreement with the Inuvialuit Game Council, a Canadian Native organization. That Agreement, which focuses on cooperative efforts to maintain the viability of the polar bear population shared among the Inupiat (northern Alaska) and Inuvialuit (Northwestern Canada) Native peoples, was signed in January 1988.

For some time, the Service has encouraged Native organizations interested in the welfare of Alaskan sea otters to form an organization much like the Eskimo Walrus Commission. Although such a Commission has yet to be organized, interest is growing as indicated in several resolutions adopted at the Alaska Federation of Natives Convention last fall.

The Service is beginning a process to revise management plans, first prepared in 1982 and revised in 1985, for polar bear, sea otter, and walrus. This will provide the opportunity to involve the State, organizations representing Natives, and other groups in a cooperative planning effort.

6. It is my understanding that the Department of the Interior has decided not to pursue any amendments to the Native exemption this year, given the high levels of walrus and sea otter and the stability of the polar bear population. Is that correct?

Response

For the reasons stated in the third part of our response to Question 1, the Department of the Interior is not pursuing any amendments to the Marine Mammal Protection Act this year. With reference to the status of the three Alaskan species of marine mammals under Service jurisdiction, the best available evidence indicates these populations remain healthy. The Pacific walrus and northern sea otter populations are at high levels and polar bear populations are fairly stable. As noted in the Service's testimony, however, we are concerned that these populations, or components thereof, may be vulnerable to unregulated harvest and, therefore, should be monitored closely to quickly detect significant changes.

Senator **Kerry**. Dr. Fox.

STATEMENT OF DR. WILLIAM W. FOX, JR., COMMISSIONER, MARINE MAMMAL COMMISSION, ACCOMPANIED BY DR. DOUGLAS D. CHAPMAN, VICE CHAIRMAN, COMMITTEE OF SCIENTIFIC ADVISORS ON MARINE MAMMALS

Dr. Fox. Mr. Chairman, I have a brief oral statement. It may take a couple more than five minutes, so I would request from the Chairman if I could have just a couple more minutes.

Senator **Kerry**. Absolutely.

Dr. Fox. Thank you very much, sir.

Mr. Chairman and members of the committee, my name is Bill Fox. With me is Dr. Douglas D. Chapman, former Chairman of the Commission and presently Vice Chairman of the Committee of Scientific Advisors on Marine Mammals.

We understand that the major thrust of today's hearing is the tuna-porpoise issue. Dr. Chapman and I are testifying on behalf of the Commission because we have both been very much involved with the tuna-porpoise issue since the early 1970s.

I have submitted a formal statement for the record. In that statement I have addressed the questions raised in your letter and those raised by staff members.

Given the fact that you wish a brief statement now, I am limiting my comments to two points, the need for conservation plans, as discussed in my prepared statement, and a general review of the tuna-porpoise situation.

The Endangered Species Act requires that recovery plans be prepared for endangered and threatened species unless, for some reason, a plan would not promote conservation of the species. Application of the idea of recovery plans to marine mammals has been something we have pursued with a number of species. With respect to the West Indian manatee, we insisted in the late 1970s that a recovery plan and a comprehensive work plan, the implementing mechanism for the recovery plan, be written.

The plans have been essential in coordinating Federal, state, and private activities to address manatee-related problems. The plans have proved so valuable that the Department of Interior is now enthusiastically undertaking the updating of the manatee recovery and comprehensive work plans. If it had not been for the original plan, progress realized today would have been much less.

With respect to the Hawaiian monk seal, an endangered species which occurs entirely within the United States waters, a similar situation existed. At the insistence of the Commission, a recovery team was appointed, and a recovery plan written for this species. Had it not been for that recovery plan and the Senate Appropriations Committee's vigorous commitment to support of the program, the situation with monk seals would have been unquestionably far worse. As it is, they may be holding their own.

For a number of years, the Commission has recommended the drafting and implementation of recovery plans for right and humpback whales. After Dr. Evans assumed leadership of the National Marine Fisheries Service, recovery teams were appointed and work has started. I am pleased to say that the Commission was able to provide the basic documentation on which these plans are being developed.

I mention these species as examples of how carefully developed plans which comprehensively address research and management issues can be of great value in efforts to restore the species or its habitat.

I think we should go further. I think that you should consider requiring the preparation of conservation plans for any species that is threatened, endangered, depleted, or substantially affected by human activities. I would certainly not require a conservation plan for any species for which a recovery plan has already been prepared.

The details of what I think should go into such a plan are included in my full statement for the record. What I am talking about is not going to cost the taxpayer more money or create a bigger Federal payroll. What I am talking about is requiring what in some instances is already being done with existing manpower and money but to do so in a written, organized, and comprehensive fashion.

Good conservation plans are needed. To write them simply means: clearly describing the existing situation and all the various conservation issues affecting the species, population, or habitat; and presenting an organized plan for research and management actions based on the analyses done. This, in fact, is a requirement of the Magnuson Fishery Conservation and Management Act, I just note parenthetically.

Also parenthetically, I would like to add one last point. For years, we have felt that progress in conserving marine mammals in Alaska would benefit from such plans. It was for this reason that we did the species reports with research and management recommendations that are to be published in a book form at the end of this month. These will serve as base documents for developing cooperative plans and agreements. This is the type of exercise that must be gone through if Federal agencies, state agencies, and nongovernmental organizations are to responsibly address considerations of habitat and species or population health in an economical way.

The second point that I would like to address is the tuna-porpoise issue. As you know, we face a serious situation. In the early 1970s, it was estimated that the domestic take of porpoise in the eastern tropical Pacific was over 350,000 animals per year. On the average, over the last five years, that level dropped to about 17,500 for the U.S. fleet. Obviously, this constitutes a substantial reduction since passage of the Marine Mammal Protection Act. I will just add parenthetically that I had the pleasure of directing the National Marine Fisheries Service's Program when we, the industry, and the environmentalists got together and caused that more than tenfold reduction in the porpoise mortality.

Unfortunately, as the numbers killed have decreased with the domestic tuna purse seine fleet, the levels of incidental kill and serious injury have increased substantially for the foreign fleet. We now have a situation where the estimated take by the foreign purse seine fleet exporting yellowfin tuna to the United States has risen to levels that have exceeded 100,000 animals in a year.

We are facing two question: How might one further reduce the levels of domestic take, and more important, how does one reduce the level of take by the international fleet exporting tuna to the United States?

Congress recognized the threat from foreign fleets in 1984, and the Act was amended to require each country exporting yellowfin tuna to the United States to provide evidence that it has a regulatory program comparable to ours, and that the average rate of incidental marine mammal take is also comparable. Last month, the National Marine Fisheries Service published an interim final rule to give effect to this amendment.

The effectiveness of this rule will depend on: first, the rule itself; second, the ability of the agencies within our government, the Inter-American Tropical Tuna Commission, the U.S. tuna industry, and the environmental community to convince foreign governments and fishermen to act responsibly; and third, how dependent each country is on the U.S. markets.

The 1984 amendments to the Act also required the National Marine Fisheries Service to set up a program to monitor indices of abundance and trends in the affected porpoise populations. Because of funding and logistic constraints, the service could not start the program until July of 1986.

At our meeting this past December, the Commission was advised that the service expects to be able to complete the five year monitoring program as planned.

Although the results of the program are extremely preliminary, we are concerned that when the analysis is completed, it will likely show that some affected porpoise stocks are smaller than previously estimated, and that the combined U.S. and foreign incidental take could cause one or more stocks to decline.

Since 1981, the year that the National Marine Fisheries Service first established the annual take of 20,500, the incidental take by the domestic fleet has varied from more than 20,000 to less than 10,000 animals. In 1982 and 1986, the allowable take of 20,500 was exceeded. During this same period, the number of vessels in the U.S. fleet has declined by more than half.

There are a number of possible reasons for the variability in the annual take of porpoise. One is the number of problem sets in which large numbers of porpoise are killed. Problem sets can be caused by a variety of things, including equipment malfunction and inexperienced crews. Other possible causes of the variation are differences in the number of sets made on porpoise schools, variation in the number of species and past capture history of porpoises that are caught, and variation in the amount of tuna caught per se.

Variables most affecting the incidental take appear to be the skill and desire of the crew, particularly the captain, to avoid killing porpoise, and the quality and maintenance of the fishing vessel and fishing gear.

In the Commission's view, the domestic porpoise take could be reduced by: one, reinstating the 100 percent observer program; two, decertifying vessels and captains that consistently kill or injure substantially more porpoise than the average vessel and captain; and three, providing assistance to the industry to explore any promising new technological approaches for efficiently catching tuna while avoiding or further reducing the incidental take of porpoise.

As I noted earlier, however incidental take by the domestic fleet is no longer the major problem. Clearly the greatest effort needs to be focused on the foreign fleet. In this regard, the Commission believes that it is critical that import regulations and such other measures be taken to: one, attain as near to 100 percent observer coverage as is possible for the foreign, as well as the domestic, fleets; two, get an international observer program based upon exchange of observers rather than having nationals observe their own vessels; three, ensure conformance by the foreign fleet to the standards applicable to the U.S. fleet; and four, intensify training and education programs for foreign as well as U.S. fishermen.

In addition, the Commission believes it is essential to continue research to estimate the probable replacement yields of each affected stock, and then to use these estimates to establish maximum allowable takes for both the international and the U.S. fleets.

With respect to the issue of reauthorization, the Commission requests that Title II of the Marine Mammal Protection Act be reauthorized at a level of $933,000 for fiscal year 1989, and such sums as may be necessary for fiscal year 1990.

I hope this review has been helpful. Thank you for having invited us to testify, Mr. Chairman.

[The statement follows:]

STATEMENT OF DR. WILLIAM W. FOX, JR., COMMISSIONER, MARINE MAMMAL COMMISSION

REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT

Good morning, Mr. Chairman and Members of the Committee. My name is William Fox, and I am a member of the Marine Mammal Commission. Because of my extensive background in the tuna-porpoise issue, Dr. Elsner, Chairman of the Commission, asked me if I would testify in his stead. Accompanying me are: Douglas G. Chapman, Ph.D., former Chairman of the Commission and now Vice-Chairman of our Committee of Scientific Advisors; John R. Twiss, Jr., Executive Director; and Robert J. Hofman, Ph.D., Scientific Program Director.

I understand that you would like me to: (1) provide an overview of the activities of the Marine Mammal Commission with respect to marine mammal conservation, management, and research; (2) comment on the current status of marine mammal populations; (3) address Federal interagency coordination regarding marine mammals; (4) discuss means of improving the effectiveness of Federal marine mammal programs including a discussion of related budgetary requirements; and (5) provide extensive comment on the tuna-porpoise issue. I also understand that you wish me to note points that may be appropriate for amendment.

INTRODUCTION

The Marine Mammal Protection Act is unique in several respects. It was, for example, the first piece of legislation in any country to require that wildlife management be approached from an ecosystem perspective. Through the concept of "optimum sustainable populations," the Act introduced a focus on the biological status of populations independent of non-biological considerations. It also established the principle that available biological and ecological information must be sufficient to allow one to reasonably conclude that any proposed taking of marine mammals will not be to the disadvantage of the affected species or population stocks before a proposed taking is authorized. The Act thereby placed the burden on the potential exploiter, rather than on the management agency or the conservation community, to reasonably demonstrate that a proposed taking would neither be to the disadvantage of marine mammals nor otherwise be contrary to the Act's goals.

Experience since passage of the Act has shown that there may be misconceptions about some provisions of the Act and that parts of it might usefully be amended to better meet the Act's intent.

An example of a misconception is found in the interpretation of Section 101(a)(3)(A). This Section of the Act provides for waiving the moratorium on taking and importing marine mammals. Until recently, a number of individuals and organizations, particularly in certain fisheries groups and some state management agencies, had apparently been of the view that, absent return of management authority to a state, the Act prohibits the intentional taking of marine mammals except by Alaska Natives or for purposes of scientific research and public display. The full range of activities permitted, including the possibility of obtaining a waiver of the moratorium for management purposes, now appears to be better understood.

With respect to possible areas for amendment, the following points are under discussion:

First, the Act does not provide explicit authority for directly regulating or prohibiting actions that could result in the destruction or degradation of breeding areas, feeding areas, or other habitats or habitat components essential to the recovery and maintenance of marine mammal populations at optimum sustainable levels;

Second, the Act prohibits the taking of animals from depleted species and population stocks, except for subsistence purposes by Alaska Natives, for purposes of scientific research, and incidental to certain non-fisheries related activities. It thus precludes the taking of depleted species and population stocks to restore or enhance protection of those species and stocks. It also prevents issuing permits to authorize the take of depleted species and population stocks incidental to commercial fishing operations even when it is obvious that the take would have no biologically significant adverse effect. In some circumstances, with appropriate controls, authorization for such takes may be appropriate;

Third, the Act presently allows issuance of permits for scientific research or other purposes only after notice in the *Federal Register* and the provision of a 30 day period for public comment. While the established review procedures are entirely appropriate in most cases, language should be considered that would make it possible (1) to address emergency situations in which the affected marine mammal species, population stocks, or individuals could be adversely affected by delay and (2) to capitalize on unique research opportunities which might otherwise be lost; and

Fourth, the Act presently does not require the development and implementation of long-term conservation plans for species or population stocks that have been, or could be, affected adversely by human activities.

We are prepared to work with your staff and other interested parties to address these and any other points you consider appropriate.

OVERVIEW OF COMMISSION ACTIVITIES

Our activities have been described and presented to Congress in our Annual Reports. These reports are distributed one month after each year's end; the 1987 Report was sent to Members in early February. The reports are comprehensive, factually accurate summaries which have been reviewed, in draft form, by all involved agencies. I do not believe that there is a better overview available of either our activities or marine mammal activities in general, and I hope that you will accept the 1987 Annual Report as part of the hearing record.

As described in our reports, the Commission has:

made numerous recommendations to the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the Department of State, and other Federal agencies on actions necessary to protect and conserve marine mammals and their habitats worldwide.

helped coordinate academic, state, Federal, and international research and study efforts to increase our understanding of marine mammals and prevent wasteful, duplicative research;

provided advice to the Secretaries of Commerce and the Interior on requests for waivers of the moratorium on taking of marine mammals and return of marine mammal management authority to states;

assisted the Department of State in developing United States' positions relative to negotiation of international agreements that would have a bearing upon the protection and conservation of marine mammals and the ecosystems of which they are a part; and managed and made known the results of a small research and studies program aimed at defining and determining how best to resolve domestic and international problems affecting the conservation and protection of marine mammals and their habitats.

CURRENT STATUS OF MARINE MAMMAL POPULATIONS

With respect to your request for comment on the current status of marine mammal populations, some populations have substantially increased as a result of the protection afforded by the Marine Mammal Protection Act. Even with the Act's protection, however, certain populations have declined. For many, the available information is insufficient to say whether the population has increased, decreased, or remained stable.

Our annual reports address the status of a number of species of special concern. These include the West Indian manatee, the Hawaiian monk seal, the North Pacific fur seal, the northern or Steller sea lion, the California see otter, the humpback whale, the right whale, the bowhead whale, the harbor porpoise, the Gulf of California harbor porpoise, and several river dolphins. While discussions in the reports are extensive, perhaps some brief additional comment will be useful.

There has been substantial progress in efforts to protect several species and their habitats. Our recent Annual Report, for example, discusses the cooperative efforts of the Fish and Wildlife Service, the Florida Department of Natural Resources, the Florida Game and Fresh Water Fish Commission, the Florida Power and Light Company, Florida Audubon, the Nature Conservancy, and several other organizations to develop and implement plans to protect manatees and habitats essential to their survival in Florida. Similar cooperative efforts by the Fish and Wildlife Service, the California Department of Fish and Game, the Minerals Management Service, and several industry and conservation groups have been successful in developing and implementing a plan to protect and encourage recovery of the remnant sea otter population in California.

In similar ways, the Fish and Wildlife Service, the National Marine Fisheries Service, the Alaska Department of Fish and Game, Alaska Native groups, and the oil and gas industry have undertaken cooperative programs involving bowhead whales, walrus, and polar bears. Perhaps the most striking example of a cooperative undertaking designed to shed light on the status of stocks and provide guidance for their conservation has been the preparation of species reports with research and management recommendations for ten marine mammal species found in Alaskan waters. The Alaska Department of Fish and Game, various Alaska Native groups, representatives of interested environmental and industry groups, members of the academic community, the Fish and Wildlife Service, and the National Marine Fisheries Service, all participated in developing the reports. The book containing these reports will be distributed at the end of this month.

Unfortunately, there are a number of species for which progress to date has not been encouraging. The North Pacific fur seal population that breeds on the Pribilof Islands, for example, has suffered a substantial population decline, particularly in the late 1970s. The cause or causes of the decline have not yet been determined. Similarly, the numbers of northern or Steller sea lions in the Gulf of Alaska and the central Aleutian Islands have declined upwards of fifty percent in the last twenty years. Also, certain harbor seal populations in Alaska appear to be declining. The cause or causes of the northern sea lion and harbor seal population declines, like the Pribilof fur seal population decline, have not been determined. Furthermore, efforts to date have not enabled us to determine the causes of declines and determine how to prevent or mitigate them in these three species. The Marine Mammal Commission continues to work with appropriate agencies to help resolve the issue.

Another particularly troublesome issue is the unexplained die-off since last July of something over six hundred porpoises along the Atlantic Coast. Activities through December 1987 are summarized in our Annual Report, and I append a further update. Like the other efforts described above, this investigation is a cooperative undertaking. Coordinated by the Marine Mammal Commission and the National Marine Fisheries Service, it has involved the Smithsonian Institution, the Department of Agriculture, the Navy, the Environmental Protection Agency, the National Institutes of Health, the Fish and Wildlife Service, and a variety of non-governmental laboratories and organizations.

The Marine Mammal Commission is charged with recommending to other agencies actions which the Commission deems appropriate to further the purposes and policies of the Act. With respect to efforts to restore and conserve species and populations, the role of the Commission in initiating activities, either through recommendations or extensive studies, is well documented. For example, the Commission has: made recommendations to create recovery teams for right and humpback whales; provided the basic documentation for the recovery plans for those species; coordinated Federal and state efforts to address manatee issues; fostered acquisition of extensive critical manatee habitat in the northwestern part of Florida through a comprehensive Commission study adopted by many state and Federal organizations; led efforts to have critical habitat designated for the Hawaiian monk seal; recommended the reconstitution of the Hawaiian monk seal Recovery Team and the development of an updated Hawaiian monk seal recovery plan; and, with respect to a more general issue, was the original moving force in encouraging the Government and certain international and intergovernmental organizations to address the issue of non-degradable debris in the marine environment. With respect to these and other efforts to determine and/or improve the status of specific populations or species, I shall be pleased to provide key documents for the record.

FEDERAL INTERAGENCY COORDINATION

Matters addressed in the preceding section bespeak a level of cooperation and coordination far beyond that which existed ten or even five years ago. Communication and coordination are better than in the past. The critical issue now is more one of whether adequate levels of effort are being focused in ways that will insure that pressing issues are addressed in a timely fashion.

IMPROVING THE EFFECTIVENESS OF MARINE MAMMAL PROGRAMS

The next matter which you asked me to address is improving the effectiveness of Federal programs regarding the conservation and protection of marine mammals. I believe that a basic need exists to clearly articulate comprehensive research and management plans for species or population stocks that have been or are likely to be substantially affected by human activities. It was in no small measure the need to develop detailed plans for certain Alaskan marine mammals that caused us to prepare the ten species accounts with specific research and management recommendations.

If one is to provide effective protection and conservation to any species, one needs to develop detailed plans that include:

1. an assessment of the status of the species or population stock and the habitats essential to its maintenance and/or recovery;
2. a description of the nature, magnitude, and causes of any known population declines or loss of essential habitats;
3. an assessment of existing and possible threats to the species/population and its habitat;
4. a description of the impacts of the species or population stock and the effect of any restrictions on the taking of the species or population stock on fisheries, offshore oil and gas development, or other human activities;
5. discussions of critical gaps in knowledge of such things as vital population parameters, habitat requirements and essential habitats, threats to the species or population stock, effects of the species or population stock on fisheries, offshore oil and gas development, *etc.*;
6. descriptions of the research, management, and other measurements needed or poposed to fill critical data gaps, restore and/or maintain the species or population stock within its optimum sustainable population range, protect critical habitats, avoid or reduce impacts on fisheries or other human activities and, if consistent with the purposes and policies of the Marine Mammal Protection Act, permit resumption of utilization for commercial or other purposes;
7. an assessment of the likely impacts of the proposed research and management plan on the affected species or population stock, fisheries, *etc.;* and
8. a description of the reporting, monitoring, and other programs that would need to be implemented to verify the predicted effects and also detect unforeseen effects of the proposed action.

To be effective, such conservation plans should have strong action-forcing mandates and should be developed and implemented by the responsible Federal agencies in cooperation with state, Native, industry, environmental, and other interested groups. We believe that a series of carefully described plans responsive to critical questions (*e.g.;* what is causing this population to decline?) might gradually decrease demands on Federal and state funding as more efficient and effective research and management plans lead to better use of money as well as improved conservation of the species and populations in question.

THE TUNA-PORPOISE ISSUE

With respect to the incidental killing and injury of dolphins or porpoises in the Eastern Tropical Pacific, several matters merit your attention.

The most important is that we must not consider the issue as one of clearly separable "domestic" and "international" components. This differentiation, while necessary to deal with the problem from programmatic and political perspectives, is of little significance biologically. If we are to understand what is happening with these species from a biological perspective, we must look simultaneously at total impacts upon the populations from both domestic and foreign fleets. The fact is that although the domestic fleet has sharply reduced its levels of take, foreign take has increased dramatically.

A critical fact is that more than 60 percent of the tuna taken and more than 80 percent of the porpoise now being killed or seriously injured in the Eastern Tropical Pacific are being taken by foreign purse seiners. In many cases, they are not required to employ the porpoise-saving measures required of U.S. purse seiners, and they have not demonstrated the ability to meet the performance standards being met by the domestic fleet. Thus, efforts by the United States fishing industry and the U.S. Government to reduce overall mortality and serious injury are being seriously compromised by foreign activities.

Other issues that should be considered are: the National Marine Fisheries Service's efforts to develop and implement a porpoise monitoring program as mandated by the 1984 amendments to the Marine Mammal Protection Act; the variation in porpoise mortality and injury rates experienced by the U.S. fishery in recent years; additional requirements that should be imposed upon foreign fleets to reduce substantially and rapidly the incidental mortality and injury; and any additional measures that might be taken to reduce further domestic incidental mortality and injury or porpoises.

The increasing threat to porpoise stocks from foreign flag purse seiners has been clear for some time. In recognition of this, Congress amended the Marine Mammal Protection Act in 1984 to require a country exporting yellowfin tuna to the United States to provide documentary evidence that—(1) it has adopted a regulatory program governing the incidental taking of marine mammals in the course of purse seining yellowfin tuna in the Eastern Tropical Pacific Ocean that is comparable to that of the United States; and (2) the average rate of incidental marine mammal take by vessels of that nation is comparable to the average rate of incidental taking of marine mammals by United States purse seine vessels.

In response to this amendment, the National Marine Fisheries Service considered a number of approaches and last month published an interim final rule on the issue. It is expected that when the final rule is put into effect, it will make countries wishing to export to the United States yellowfin tuna caught by purse seiners setting on porpoise satisfy a two-part test: (1) to provide documentary evidence that the nation has adopted a regulatory program governing the incidental taking of marine mammals that is comparable to the program of the United States, and (2) to demonstrate that the average rate of incidental mortality by its fishing vessels is comparable to the rate of incidental marine mammal mortality by the U.S. seine fleet operating in the Eastern Tropical Pacific.

The effectiveness of this interim rule, which we expect will be further amended before being put into final form, in reducing the incidental mortality and serious injury of porpoise in the Eastern Tropical Pacific will depend upon several factors addressed in the attached correspondence from the Commission and in the points discussed below. A critical element will be the degree to which the regulations can compel foreign governments to adopt the U.S. view that incidental mortality and injury of porpoise must be sharply and immediately reduced and then take action accordingly. Another factor is the ability of the Inter-American Tropical Tuna Commission, the National Marine Fisheries Service, the Department of State, the U.S. tuna fishery, and the environmental community to communicate the gravity of the problem to foreign governments and fishermen with sufficient force to insure adoption and application of porpoise saving measures comparable to those required of, and used by, U.S. fishermen. Another critical element is the size of the foreign fishery and its dependence on U.S. markets. To refuse to allow imports from a nation that exports little or no tuna to the United States may be a hollow exercise without impact.

The 1984 amendments to the Marine Mammal Protection Act also required the National Marine Fisheries Service to undertake a scientific research program, beginning on 1 January 1985 and continuing for at least five years, to monitor indices of abundance and trends in the porpoise populations affected by the yellowfin tuna purse seine fishery in the Eastern Tropical Pacific Ocean. In response, the Service, in consultation with the Commission, the U.S. tuna industry, and the Inter-American Tropical Tuna Commission, convened a series of meetings in 1984 to develop a program plan. Subsequently, the Service adopted a program plan consisting of: (1) surveys of the affected porpoise populations using dedicated research ships of the National Oceanic and Atmospheric Administration; (2) analyses of data collected by observers placed aboard tuna purse seiners; and (3) analyses of biological and behavioral data collected from both research and fishing vessels.

As noted in our Annual Reports for 1986 and 1987, funding and logistic constraints prevented initiation of the program in 1985 as originally planned. With one exception, program elements were started in July of 1986. The exception was that the Service did not have a helicopter available to verify school size estimations and to determine whether porpoise are attracted to or attempt to avoid survey vessels. This was addressed in 1987 when the Service used one helicopter and two research vessels, the *David Starr Jordan* and the *MacArthur*, for porpoise surveys and related oceanographic studies. The surveys began in July and ended in early December 1987. In any year, the surveys can cover only a small fraction of the approximately five million square miles of the Eastern Tropical Pacific where purse seiners set on porpoise. However, they did provide data necessary to calibrate shipboard estimates of porpoise school size and to calculate age composition of porpoise schools. These will provide the basis for population estimates.

The Commission was advised at its meeting on 10–12 December 1987 that the Service expects to be able to complete the remainder of the five-year monitoring program as planned. The results thus far of the monitoring program are extremely preliminary. However, we believe that the analysis is completed, it may show that the size of some affected porpoise stocks is smaller than previously estimated. If this is the case, then the combined U.S. and foreign incidental take could be greater than the annual replacement increment and be causing one or more stocks to decline.

The amendment directing the National Marine Fisheries Service to undertake a five-year monitoring program was enacted in part, because of uncertainty about the status of several of the affected porpoise stocks. To avoid penalizing the U.S. fleet because of this uncertainty, the Act also was amended in 1984 to extend the general permit issued to the American Tunaboat Association on 1 December 1980 to authorize and govern the continued taking of marine mammals incidental to commercial purse seine fishing for yellowfin tuna after 31 December 1984. This amendment continued a previously establishing quota on the incidental taking of marine mammals in the yellowfin tuna purse seine fishery, while specifying the maximum allowable take of two species—the coastal spotted dolphin *(Stenella attenuata)* and the eastern spinner dolphin *Stenella longirostris)*—whose statuses were particular uncertain.

Since 1981, the year in which the National Marine Fisheries Service first established an annual allowable take of 20,500, an average of about 17,500 dophins or porpoises have been taken each year by the U.S. tuna purse seine fleet in the Eastern Tropical Pacific. During this same period, the number of vessels in the U.S. fleet has declined by more than half. In 1982 and 1986, the allowable take of 20,500 was exceeded. In 1983, the estimated take was 9,589, the lowest ever recorded. In 1987, the estimated take was 13,992, which also is substantially below the seven year average of approximately 17,500.

There is a variety of reasons for the variability in the annual take of porpoise by the U.S. tuna purse seine fleet. One is the number of "problem sets" in which large numbers of porpoise are killed. Problem sets can be caused by a variety of things including equipment malfunction and inexperienced crews. Other possible causes of annual variation in incidental take are: differences in the number of sets made on porpoise schools; variation in the number, species, and past capture history of porpoises that are caught; and variation in the amount of tuna caught per set. With regard to the last point, the 1987 tuna catch rate of less than twenty tons of tuna per set, well below the 1986 level of about twenty-five tons of tuna per set, is consistent with previous observations that fewer porpoises are killed when fewer tuna are taken.

Despite the relatively low domestic porpoise mortality in 1987, an unusally large number of eastern spinner dolphins was taken. The 1984 amendments established a quota of 2,750 for the eastern spinner stock. In 1987, an estimated 2,688 eastern spinner dolphins were killed or seriously injured. By comparison, when the overall quota of 20,500 was exceeded in 1986, the estimated mortality of eastern spinners was only 1,608. The reasons for this are not known but a possible explanation is that tuna, and therefore, fishing effort, were concentrated in 1987 in an area of the

Eastern Tropical Pacific Ocean where eastern spinner dolphins are more abundant than in areas where the fishery normally occurs.

It is generally agreed that the variables which most affect porpoise take rates are the skilled and desire of the crew, particularly the captain, to avoid killing porpoise, and the quality and maintenance of the vessel and gear. The most effective ways to further reduce the incidental mortality and serious injury by the U.S. purse seine fleet would be: (1) to reinstate the 100 percent observer program; (2) to decertify vessels and captains that consistently kill or injure substantially more porpoise than the average vessel and captain; and (3) should promising new technological approaches be identified, to provide assistance to the industry in exploring those that might further reduce levels of kill and injury.

While there has been a great reduction in levels of domestic take since the early '70s, the foreign take has grown rapidly in recent years. Clearly, the greatest effort needs to be focused on the foreign fleet. Import regulations and such other controls or means of influence as might be developed should be thoroughly exercised to: (1) attain as near to 100 percent observer coverage as is possible; (2) attempt to get an international observer program based upon exchange of observers rather than having nationals observe upon their own vessels; (3) ensure conformance of the foreign fleet with all of the standards applicable to the U.S. fleet; and (4) intensify training and education programs for foreign fishermen. Such actions should substantially reduce the levels of incidental kill and injury by the foreign fleet. In addition, to effectively ensure that the combined U.S. and foreign incidental take will not further jeopardize any of the affected porpoise stocks, the Commission believes that it is necessary to continue research to estimate the probable replacement yields of each affected stock and then use these estimates to establish allowable total take levels.

REAUTHORIZATION OF THE COMMISSION

With respect to the issue of reauthorization, the Commission recommends reauthorization of Title II of the Marine Mammal Protection Act at its existing level of $933,000 for Fiscal Year 1989 and such sums as may be necessary for Fiscal Year 1990.

I hope this review has been helpful. Thank you for having invited the Commission to testify.

QUESTIONS SUBMITTED TO DR. WILLIAM W. FOX, JR., FOR THE RECORD BY SENATOR ERNEST F. HOLLINGS SENATE COMMERCE COMMITTEE HEARING ON REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT APRIL 13, 1988

QUESTION:

Over the past year, an unusual number of marine mammals have washed up on the beaches of the eastern Atlantic. In particular, I am concerned about the widespread epidemic among bottlenose dolphins, which resulted in the deaths of several hundred animals. I understand that they appeared to suffer from a weakened immune system which sounds similar to AIDS in humans.

-- Is this accurate? Please explain.

-- Could such incidents result from a deterioration in the quality of the coastal marine environment?

ANSWER:

As noted in the attached[1/] progress report prepared by Dr. Joseph R. Geraci, studies were done as part of the ongoing investigations to determine whether the immune suppression might be a form of "dolphin AIDS". Blood and tissue samples from affected animals were sent to Dr. R. Benveniste of the National Cancer Institute, National Institutes of Health, Bethesda, MD, and examined for evidence of infection by retroviruses, including that associated with human Acquired Immune Deficiency Syndrome (AIDS). The examination results were negative.

Many forms of pathogenic bacteria have been isolated from the skin, blood, and organs of dolphins that have died and washed ashore along the Atlantic coast. Most if not all of these bacteria are commonly present in the warm coastal waters inhabited by the dolphins, and have also been isolated from healthy dolphins. Evidence from histopathology, the nature of the organisms themselves, and the pattern of dolphin mortality suggest that the bacteria are opportunistic and able to affect dolphins only after they have been weakened by stress or other circumstances which suppress the immune system.

Factors which could weaken or stress animals and suppress the immune system include: changes in the environment (*e.g.*, abnormally high or low water temperatures); decreased food supplies; viral infections; and acute or chronic exposure to biotoxins (*e.g.*, toxins from organisms which cause red tide and paralytic shellfish poisoning) and man-made environmental pollutants. Thus, it is possible that the mortality could have

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[1/] The attachment referred to was not reproducible.

been caused or triggered by deterioration of the quality of the coastal marine environment.

QUESTION:

The MMPA has established the optimum sustainable population (OSP) level as a threshold for finding a marine mammal population depleted.

-- Do you believe that this threshold concept of depletion is an essential aspect of the MMPA? Please explain.

ANSWER:

Yes, the Commission believes that the threshold concept of depletion is an essential aspect of the Marine Mammal Protection Act. The term "optimum sustainable population" has been interpreted to mean a population size which falls within a range from the population level of a given species or stock which is the largest supportable within the ecosystem to the population level that results in maximum net productivity (MNP). The maximum net productivity level is the population size at which the annual increase in population numbers or biomass resulting from additions to the population due to reproduction and/or growth less losses due to natural mortality is greatest. The maximum net productivity level is the level below which increases in survival or productivity can no longer compensate for increases in mortality due to natural causes, hunting, incidental take, *etc*.

Under natural circumstances, it is unlikely that marine mammal populations ever would exceed carrying capacity levels or be reduced below MNP levels. Thus, population sizes between these two levels can be considered healthy provided there has been no substantial destruction or degradation of essential habitat or habitat components. In addition, if population regulation is density-dependent as seems likely for most if not all marine mammal species, carrying capacity and MNP levels have biological significance and can be estimated both theoretically and actually. No other population levels have similar biological significance or can be used, without making value judgments, to judge population status.

Although the Commission believes that the threshold concept of depletion is an essential aspect of the Marine Mammal Protection Act, it also believes that, in some circumstances, it would be appropriate to authorize taking of depleted species. In particular, the Commission believes that it would be appropriate to expand the present provisions of the Act authorizing the taking of depleted species for scientific research and certain other limited purposes to allow taking in certain cases where the effects of the taking would be biologically insignificant. That is, the taking would not significantly affect the rate at which the depleted population increases towards its maximum net productivity level.

QUESTION:

In 1972, less than $200,000 was spent on research and management programs for marine mammals within the Interior and Commerce Departments. Since that time, however, spending on marine mammal programs has escalated. In 1987, the budget for marine mammals in the Commerce Department alone exceeded nine million dollars.

- Are these funds being effectively allocated towards current research and management needs? Please explain.
- What are the strengths and weaknesses of current marine mammal research and management programs?

ANSWER:

This is a complex question. In general, appropriated funds are being directed towards priority research and management tasks. We believe that the estimate that the Committee was given of the Service's spending less than $200,000 per year on marine mammal research and management in 1972 is a substantial underestimate. It seems likely, for example, that the National Marine Fisheries Service was spending considerably more than $200,000 per year in 1972 just on assessing and monitoring the Pribilof Island fur seal population and managing the annual harvest of juvenile male fur seals under the Interim Convention for the Conservation of North Pacific Fur Seals. In addition, states like Alaska and California were spending more than they now are on research and management of marine mammal populations.

The strengths and weaknesses of current marine mammal research and management programs can be illustrated by several examples. The strongest programs are those, like the Fish and Wildlife Service's manatee research and management program and the National Marine Fisheries Service's Hawaiian monk seal research and management program, which are guided by Recovery Plans developed in consultation with the Commission, relevant state agencies, affected industries, the academic community, and public interest groups. With respect to other programs, the major weaknesses, other than limited funding, are: (1) the lack of well articulated research and management plans for many species and problems (e.g., North Pacific fur seals, Steller sea lions, marine mammal-fisheries interactions); (2) inadequate consultation with outside experts (e.g., scientists from the academic community and state management agencies); (3) lack of flexibility due, in part, to large scientific and technical staffs and limited use of outside contractors; and (4) inability to effectively focus or reprogram funds to deal with new or changing research and management needs. Of these, the most glaring weakness is the lack of well articulated research and management plans, with defined goals and timetables. The absence of such plans makes it virtually impossible to accurately judge the effectiveness of many programs.

QUESTION:

Discussion addressing the incidental take of depleted and unknown status species has centered around fisheries in the North Pacific. Relatively little attention has been focused on the situation in the Atlantic and Gulf of Mexico.

-- Which domestic fisheries in the Atlantic and Gulf are likely to take marine mammals?

-- Have there been any efforts by the Marine Mammal Commission to assess the incidental take of marine mammals by domestic fishermen operating in the Atlantic and Gulf? Please explain.

ANSWER:

Domestic fisheries known to take marine mammals along the Atlantic and Gulf coast of the United States include: gillnet fisheries for groundfish (*e.g.*, haddock, pollack, cod), mackerel, swordfish, sturgeon, and shad; purse seine fisheries for herring, mackerel, tuna, and menhaden; stop seine and weir fisheries for herring; and trawl fisheries for shrimp, mackerel, and other species.

The Marine Mammal Commission has done several things to assess the incidental take of marine mammals by domestic fisheries along the Atlantic and Gulf coast. In September 1979, the Commission sponsored a workshop to review available information concerning the status and trends of cetacean and pinniped populations along the east and Gulf coasts, and to identify the nature and, as possible, extent of human activities that may be threatening these species. In response, in part, to this workshop, the National Marine Fisheries Service contracted with the University of Maine to document the species and number of marine mammals being taken incidentally in fisheries along the New England coast. Subsequently, the Commission contracted with John E. Reynolds, III, Ph.D. to survey fishermen and others to determine the nature and magnitude of interactions between bottlenose dolphins, *Tursiops truncatus*, and fisheries and other human activities in coastal areas along the southeastern and Gulf states.

QUESTIONS SUBMITTED TO DR. WILLIAM W. FOX, JR., FOR THE RECORD BY SENATOR JOHN KERRY SENATE COMMERCE COMMITTEE HEARING ON REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT APRIL 13, 1988

QUESTION:

The 1984 amendments to the MMPA set a quota of 20,500 dolphins which may be taken by U.S. fishermen annually.

-- Do you feel that this quota could be reduced without threatening the continued viability of the U.S. industry?

-- Should it be reduced?

ANSWER:

The Commission believes that the quota could be reduced without threatening the continued viability of U.S. industry. However, the major threat to porpoise populations being affected by the yellowfin tuna purse seine fishery in the eastern tropical Pacific is now from foreign fishing fleets, not the U.S. fishing fleet. Thus, while there is reason to consider reducing the U.S. quota, the important thing to do now is to take steps to simultaneously establish and effectively implement an overall quota for all purse seiners engaged in the fishery.

QUESTION:

With respect to the IATTC, please elaborate on the need for higher levels of observers and an observer program based upon exchanges.

ANSWER:

Experience with observer programs suggests that some fishermen may alter their fishing techniques when observers are present. Thus, porpoise catch and kill data from vessels with and without observers are not comparable so that the only way to accurately esstimate the total incidental kill and serious injury of porpoise is to place observers aboard all vessels engaged in the fishery.

Although there is no evidence that it occurs, it seems reasonable to assume that a fisherman may be less likely to rigorously apply porpoise-saving techniques when being observed by an observer from his own country than by an observer from another. It also seems reasonable to assume that observers may be more reluctant to report problems encountered by fishing vessels from their own countries than those encountered by vessels from other countries. Thus, the Commission believes that an internatinal observer program would be more effective if observers could be placed aboard fishing vessels of other than their own nationalities.

QUESTION:

The Committee recently received a copy of a letter to Dr. Nancy Foster from scientists at the Hubbs Marine Research Center. The purpose of the letter was to request that NOAA consider a proposal for testing alternative methods of catching tuna without setting on dolphin.

-- Is such a proposal a good idea?

-- What research has been done in recent years to develop alternative methods for locating and catching yellowfin tuna? What were the results?

ANSWER:

The Commission has not seen the letter to Dr. Foster, and cannot comment on the specifics of the proposal. The Commission does believe that a number of things might be done to further evaluate alternative methods for catching yellowfin tuna without setting on dolphins. In particular, additional research could be done to evaluate possible ways of luring tuna away from porpoise schools and to assess devices that might be deployed from purse seiners to artificially aggregate the large size yellowfin tuna now caught in association with porpoise.

The Commission is not aware of any recent research to develop alternative methods for locating and catching yellowfin tuna. The results of research done before 1981 are summarized in the annexes to the attached[1] report from the Commission-sponsored workshop held in May 1981 to identify and assess alternative methods for catching yellowfin tuna.

QUESTION:

One suggestion for addressing the tuna-porpoise issue is the development of performance standards for the industry.

-- Would you support such standards?

-- What role would you anticipate for the industry's Expert Skipper's Panel in development of standards for the U.S. fleet?

-- Would performance standards be an effective tool for addressing the international problem?

ANSWER

The Commission believes that establishing performance standards for both vessels and captains provides the most

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1/ The attachment referred to was not reproducible.

reasonable way to further reduce the incidental kill and serious injury of porpoise by the U.S. tuna purse seine fleet. The Commission supports developing and implementing such standards.

The Commission believes that the Expert Skipper's Panel is one of the primary sources of expertise regarding variables that may cause or contribute to porpoise mortality and injury, and steps that can be taken to avoid or reduce problem sets and other factors contributing to porpoise mortality and injury. The Commission would expect the Expert Skipper's Panel to play a major role in developing performance standards for the U.S. fleet.

If performance standards are established for vessels and captains in the U.S. tuna purse seine fleet, standards that are no less rigorous should be applied to foreign vessels and captains. Certifications required for foreign nations to export tuna to the United States should be expanded to require that individual vessels and captains meet the same performance standards to which U.S. vessels and captains are held.

QUESTIONS SUBMITTED TO DR. WILLIAM W. FOX, JR., FOR THE RECORD
BY SENATOR BOB PACKWOOD
SENATE COMMERCE COMMITTEE HEARING ON
REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT
APRIL 13, 1988

QUESTION:

As I see it, there are four aspects of this issue that require our attention: (1) the status of the affected populations of porpoise; (2) the performance by the U.S. fleet; (3) the kill by foreign vessels; and (4) alternative fishing techniques that could obviate the need to set on porpoise and thereby offer a solution to the other problems. I have several questions on each aspect.

Status of Porpoise Populations

-- Do you recommend that Congress amend the Act this year to change the 20,500 quota for the U.S. fleet because of concerns about the status of the affected populations?

-- Do you recommend any amendments, additional funding or other action regarding research on the status of porpoise populations?

-- How does the IATTC's porpoise abundance research program relate to the NMFS' five-year research on trends?

-- How much money is the U.S. contributing to the IATTC program?

ANSWER:

The Commission believes that the incidental take of porpoise by the foreign tuna purse seine fleet now poses the primary threat to porpoise stocks in the Eastern Tropical Pacific Ocean. As things stand, changing the U.S. quota would have some effect on reducing the overall kill and serious injury of porpoise, but a more intensive focus of attention needs to be placed on foreign fishing activities. Consequently, while the Commission believes that the 20,500 quota for the U.S. fleet could be reduced, the Commission believes that it would be desirable to work with the U.S. tuna purse seine fleet to develop and implement performance standards which would result in a decrease in the number of porpoise killed or injured by the U.S. fleet while focusing really intensive efforts on the reduction of foreign kill.

With regard to funding, we understand that the National Marine Fisheries Service has the resources necessary to complete the five-year monitoring program plan in response to the 1984 amendments which require the Service to undertake research to monitor indices of abundance and trends of stocks affected by the yellowfin tuna purse seine fishery in the Eastern Tropical Pacific Ocean. The Commission believes that it would be desirable to resume 100 percent observer coverage pending development and implementation of performance standards for vessels and captains involved in the fishery and that partial funding should be provided to assist fishermen in evaluating and developing alternative fishing practices if promising are identified. For example, artifical aggregating devices may, in some circumstances, be an effective substitute for setting on porpoise and this may well be an avenue of inquiry appropriate for a joint industry/Government study group.

With regard to relationships between the IATTC and National Marine Fisheries Service, porpoise research programs, the Service's five-year monitoring program focuses on three things: (1) using research vessels to obtain distribution, density, and other information that can be used to evaluate and improve porpoise abundance estimates and indices; (2) evaluating porpoise sighting and other information collected by observers to determine it value in assessing and monitoring the status of the affected porpoise stocks; and (3) carrying out life history studies to help identify and evaluate vital population parameters. The IATTC's porpoise abundance research program, as we understand it, is focused on determining whether porpoise sighting data from tuna purse seiners can be used to reliably estimate porpoise abundance using line transect theory. The two programs are complementary. While the U.S. is making no direct monetary contribution to the IATTC porpoise abundance research program, scientists from the National Marine Fisheries Service and the IATTC routinely consult with each other on the design and conduct of the two programs. The U.S. IATTC assessment of about $2,680,000 covers approximately 80 percent of the IATTC operating budget of which about $1,000,000 is used for the IATTC observer program and other porpoise-related activities.

QUESTION:

Ninety-five percent of the trips by the U.S. fleet were observed during 1987 and the total kill was 13,992 as compared to 20,692 in 1986.

-- What is the explanation for the decline in total kill? Did the performance improve, the number of sets on porpoise decline, fishing conditions change, or was the more complete sample just more accurate?

-- Did the nearly total observer coverage reveal any weaknesses in the previous observer coverage based upon a sample of about 1/3 of the trips? Has the observer coverage for 1988 been modified to remedy any such weaknesses? If so, how?

-- What percentage of the U.S. fleet's trips will be covered by the observer program in 1988?

-- Are you confident that the 1988 observer program will provide reliable estimates of the kill by U.S. vessels?

-- There has been some discussion of developing performance standards for the U.S. fleet with the idea that the skippers whose kill rates are far in excess of the fleet average would be required to improve or stop setting on porpoise. Would you support such a program? Why has such a program not been instituted?

ANSWER:

Analytical comparisons of data from the 1986-1987 fishing seasons are not finished. Preliminary IATTC analyses indicate that the reduction may have been due to a number of things including: a reduction in the proportion of sets on common dolphins (a species with the highest probability of being killed when caught in purse seine nets); a slight reduction in the number of night sets (where poor visibility increases the probability of problem sets); a significant increase in the number of sets with no porpoise mortality; a decline in the number of disaster sets; and a decline in the average number of porpoise encircled. The National Marine Fisheries Service is doing a detailed comparison, expected to be done this summer, of 1986 and 1987 observer data to assess the effect of the percent of observer coverage on estimates of porpoise mortality and injury.

The 1988 observer program, designed to place observers on every other trip made by U.S. purse seine vessels, should provide a reasonably accurate estimate of the total kill during observed trips The accuracy of the total estimate will depend, in part, upon the accuracy of the estimates of the level of variation between observed and non-observed trips now being done by comparing 1986 and 1987 observer data.

The Commission believes that it would be desirable to develop and implement performance standards for both vessels and captains involved in the yellowfin tuna purse seine fishery.

QUESTION:

The interim final regulations on tuna imports were published March 18, 1988, to implement the 1984 amendments. They do not require "comparable" kill rates of foreign fleets until 1991.

-- What, if any, changes in the interim regulations would you recommend, and why?

-- How will you evaluate the reliability of a foreign nation's reported kill rate if its vessels are not covered by the IATTC program?

-- At what levels of government have discussions of this issue taken place? Has the Marine Mammal Commission recommended that the Department of State bring it to the attention of high-level officials of the foreign governments involved?

ANSWER:

The Commission's views and recommendations on the interim regulations are set forth in the attached letters to the Service. As noted, the Commission believes that there must be comparability in enforcement methods, enforcement effectiveness, and penalties imposed on violators, as well as comparable laws and regulations. These would contribute to evaluating the reliability of reported kill rates if a nation's vessels were not covered by the IATTC program. If the IATTC were authorized to provide data and analyses concerning each nation's programs, it would be our view that full participation in the IATTC observer program would be required for a country to be certified as in compliance with the import regulations.

The Commission has discussed the issue with the State Department but has not made a formal recommendation that the Department of State raise the issue at high levels with the foreign governments involved.

QUESTION:

Our fleet must abide by subquotas on individual stocks within the overall quota of 20,500. The regulations do not appear to require that a foreign government establish subquotas or a total quota for its foreign in order to gain approval of its regulatory program.

-- Have you considered a scheme that would require that nations set quotas for their fleets and require that their tuna be embargoed if the quotas are exceeded?

ANSWER:

The Commission, as noted in its earlier testimony, believes that one cannot simply look at levels of take in the domestic and foreign fleets as separate issues--the biological significance lies in total impacts, regardless of source, on populations. Therefore, it is clear that it is desirable to establish an overall quota for all fishing fleets and to allocate the quota proportionally among the fleets. We have not considered the possibility of requiring that nations set quotas for their fleets and require that their tuna be embargoed if those quotas are exceeded. Both possibilities may have merit. Available information is insufficient, however, to calculate what the overall quota should be, to determine how the quota should be allocated by porpoise stock and fishing fleet, or to estimate the potential economic consequences of such an action.

The studies and analyses presently being carried out by the National Marine Fisheries Service and the IATTC should provide the information necessary to make these determinations.

QUESTION:

Alternative Fishing Techniques

-- What has been done since the enactment of the 1984 amendments to implement the provisions calling for research into alternative methods of fishing? Have requests for proposals been published? How much money has been made available for such research? How many proposals have been submitted, what action has been taken on each such proposal?

ANSWER:

To the best of our knowledge, only one thing has been done since 1984 to assess alternative methods for catching yellowfin tuna without setting on porpoise. In April 1986, the National Marine Fisheries Service convened a meeting of representatives from the Service, the Marine Mammal Commission, and the U.S. tuna industry to discuss alternatives to catching large yellowfin tuna by setting on porpoise. The group concluded that little had changed since the Commission-sponsored workshop in 1981 and that: new fishing techniques or gear could not be developed until the tuna/porpoise bond was better understood and a method to break the bond was perfected; and additional research was not likely to be funded unless all concerned parties agreed that an identified alternative was likely to reduce the kill of porpoise without putting U.S. tuna fishermen at an economic disadvantage in the international tuna market.

QUESTION:

-- Would you support the convening of a task force of experts in a wide variety of fields to explore research and development opportunities relating to alternative fishing techniques that do not involve sets on porpoise?

ANSWER:

There is some question as to whether such a task force could identify alternatives not already identified in the Commission-sponsored workshops held in 1976 and 1981. However, there is reason to believe that a more focused research effort might prove valuable. For example, further research is indicated to determine if the large yellowfin tuna found in association with porpoise can effectively be attracted to, held, and caught in association with artificial aggregating devices, and a task force might be helpful in designing, facilitating, and evaluating the results of such research. Pending the outcome of such studies, the Commission believes that decertifying captains and vessels that fail to meet minimum performance standards, coupled with a 100% observer program, is the best way to further reduce the incidental take of porpoise by the U.S. purse seine fleet.

QUESTION:

The attached documents set forth the rationale and arrangements for the agreement between the U.S. and Japan for high seas squid drift net observer program in 1988.

-- Was the Commission consulted by the National Marine Fisheries Service about the rationale and arrangements?

-- Please provide your comments from a scientific and policy standpoint on the rationale and arrangements for the squid fleet program as well as your recommendations for a monitoring program to provide reliable estimates of the incidental take of marine mammals in each of the following Japanese drift net fisheries: (1) the mother ship salmon fleet inside our EEZ; (2) the mother ship salmon fleet outside our EEZ; (3) the land-based salmon fleet; and (4) the squid fleet.

ANSWER:

No, the Commission was not consulted by the National Marine Fisheries Service about the rationale and arrangements for the high seas squid drift net observer program in 1988.

The squid and salmon gill net fisheries in the North Pacific are the largest high-seas fisheries anywhere in the world. It is known that a number of species of marine mammals, sea birds, and other marine organisms are caught incidentally in the fisheries. There is limited information, however, on the nature, magnitude, and effects of this incidental catch, particularly in the high seas squid net fisheries. The Commission believes that an observer program is the only way to obtain reliable information on the species, numbers, ages, sex, and other characteristics of animals being caught. Such programs also provide the only reliable way of evaluating the effectiveness of measures instituted to prevent or reduce the incidental take of non-target species.

For the system to work, (1) observer programs must be stratified to assure proportional sampling of each vessel class and gear type involved in the fishery in each fishing area and during each fishing season (if there is more than one fishing area or season); (2) initially, at least 10% of each strata should be sampled (when the extent and causes of variation in incidental take levels are known, it may be possible to reduce the observer coverage without significantly affecting the reliability of estimates generated from the observer data; if the variability is great, or affected by the presence of observers, it may be necessary to increase the percent coverage to 50% or more to get reliable information); and (3) the observers should be well trained, not associated in any way with the fisheries being observed, and placed randomly on fishing vessels in each strata so that the sampling results can reasonably be extrapolated to the fishery(ies) as a whole.

QUESTION:

The Commission has devoted substantial efforts over the years to an analysis and resolution of problems resulting from apparent and actual competition between marine mammals and fishermen. What have been the results of those efforts? Are the problems increasing or decreasing in number and severity? What do you recommend, in addition to further research, be done to resolve them?

ANSWER:

The Commission, as described in its annual reports to Congress, has held or cosponsored four workshops and supported a number of studies to gather and assess information concerning the nature, extent, and impact of interactions between fisheries and marine mammals. Efforts have been directed towards the Bering Sea, and the coastal waters of Alaska, Hawaii, and coastal states of the Western Atlantic and Gulf of Mexico. These efforts, taken with those of the National Marine Fisheries Service, the Fish and Wildlife Service, the California and Alaska Departments of Fish and Game, and other organizations, have shown that a number of marine mammal species affect and are affected by commercial fisheries. Available information indicates, for example, that:

- harbor seals take and damage substantial numbers of caught salmon, and themselves are caught incidentally, in salmon gill net fisheries in areas such as the Copper River Delta of Alaska and the Columbia River in Washington and Oregon;

- substantial numbers of sea otters, harbor porpoise, harbor seals, and California sea lions are caught incidentally in set net fisheries for halibut and other bottomfish along the central California coast;

- California sea lions and harbor seals take or damage caught fish and may cause fish to stop biting resulting in substantial economic losses to commercial passenger ("party boat") fisheries and salmon troll fisheries in California;

- killer whales are having an impact on longline fisheries for black cod in Prince William Sound, Alaska and in the Bering Sea, and themselves are being killed or injured by fishermen attempting to prevent them from taking hooked fish as they are retrieved; and

- a number of marine mammal species may be competing directly with fishermen for the same fish and shellfish resources.

Among other things, the work done to date indicates that:

1. some problems are related to the status of fish stocks and their resolution is more dependent upon effective fishery management than marine mammal management. The number of salmon which marine mammals take from or damage in gill nets, for example, tends to be relatively constant and is a serious problem only when salmon runs are small and few fish are caught. Similarly, some problems occur primarily at the beginning and end of fishing seasons, when few fish are present in fishing areas (e.g., the Columbia River and the Copper River Delta). The former problem can be avoided by maintaining healthy fish stocks. The latter can be avoided or reduced by avoiding "scratch fishing" and/or by fishing only during daylight hours and not leaving nets unattended;

2. some problems apparently are caused by learned behaviors (e.g., some California sea lions apparently have learned to follow commercial passenger fishing vessels and to prey upon caught fish), and possibly can be avoided or reduced by using aversive conditioning to cause marine mammals to avoid fishing gear, fishing vessels, and/or caught fish;

3. some problems (e.g., the incidental take of sea otters and harbor porpoise in California set net fisheries) apparently can be avoided or reduced only by prohibiting use of gill nets, or by developing and utilizing alternative fishing gear in areas where marine mammals are likely to be caught; and

4. some problems (e.g., competition between sea otters and fishermen for the same shellfish resources) can be resolved only by regulating the distribution and

abundance of marine mammals, as well as fishing effort, seasons, and areas.

As new fisheries develop, fishing practices change, and marine mammal populations increase or decrease, the number and severity of interaction problems may change. The relatively new squid gill net fishery in the North Pacific, for example, poses substantial threats to several marine mammal species, sea birds, and other marine organisms. Conversely, as sea otters recolonize their former range in Alaska, they may increasingly affect shellfish and other fisheries that developed in their absence. Also, interactions, such as those between killer whales and the black cod longline fishery, resulting from learned behaviors, may increase if steps are not soon taken to change and/or prevent the development of such behaviors.

In addition to further research, the Commission believes that several things should be done to resolve problems being caused by marine mammal-fishery interactions. First, steps should be taken to improve the reporting by fishermen of: the numbers and species of marine mammals being taken incidentally during fishing operations; the quantities and value of fish being taken or damaged by marine mammals; and the amount of gear damage and loss being caused by marine mammals. In this regard, the Commission believes that the National Marine Fisheries Service must be given authority to place observers aboard any vessel which engages in fisheries in waters under Federal and state jurisdiction. Not only is such authority necessary to obtain the information required to reliably assess and manage fisheries, it is also essential if one is to assess the nature and extent of marine mammal-fisheries interactions and the effectiveness of actions taken to avoid or mitigate harmful interactions.

Second, the Commission believes that fisheries, fish stocks, and marine mammals must be managed cooperatively. In cases where either the fisheries, fish stocks, or marine mammals are being affected adversely, conservation plans should be developed and implemented cooperatively by the relevant Federal and state management agencies, fisheries, and public interest groups. As described in our testimony, the Commission also believes that the Marine Mammal Protection Act should be suitably amended to authorize the incidental taking of depleted marine mamml species in cases where conservation plans have been developed and provide assurance that any authorized incidental take will not substantially impede recovery of the affected marine mammal species or stocks to optimum sustainable levels.

With regard to research, the Commission believes that further studies are needed to: identify and evaluate possible alternatives to gill nets; determine types of aversive conditioning that might be used to effectively keep marine mammals away from fishing vessels, fishing gear, and/or caught fish; and better determine when and how marine mammals are caught in gill nets and other types of fishing gear and how the fishing gear or practices might be changed to avoid or reduce the incidental take.

QUESTION:

You note the continuing decline of the northern fur seal population and the difficulties encountered in identifying the cause(s) of that decline. The Commission has also recommended on several occasions that the population be designated as "depleted" under the Act.

-- What hypothesis or hypotheses do you consider the most likely explanation of the decline?

-- What specific research efforts do you recommend to confirm or deny the most likely hypotheses?

-- How long and how much money will be required for such research to yield the results that will confirm or deny them?

-- What do you recommend be done in the meantime, while such research is under way?

ANSWER:

Possible causes of the observed North Pacific fur seal population decline include: entanglement in lost and discarded fishing gear; incidental take in trawl and gill net fisheries in the North Pacific; decrease in the species' carrying capacity due to fisheries development and/or natural changes in the Bering Sea ecosystem; a variety of possible diseases and environmental pollutants; changes in the age/sex composition and productivity of the fur seal herd in response to changes in harvest practices; decrease in the biological fitness of the population due to selective harvest practices; and/or some combination of these possibilities.

Based on available information, the Commission believes the more likely cause of the decline to be entanglement in lost and discarded fishing gear and/or incidental take in trawl and gill net fisheries rather than any of the other possibilities noted above. The available information is insufficient, however, to reasonably conclude that one of the possible causes is substantially more likely than another. To make this determination the task of greatest immediate importance is to better understand the nature of the decline. To this end, the Commission considers two things particularly important: (1) to complete analysis of existing population and habitat data and indices so as to obtain the best possible assessments of changes in vital population parameters, particularly age-specific survival and mortality rates, and habitat characteristics since the early 1960s; and (2) to conduct multiple mark/resighting programs on St. Paul, St. George, and San Miguel Islands, for a minumum of three to five years, to provide more reliable information on age-specific survival and reproductive rates.

In addition, the Commission believes that studies should either be continued or started to: (a) better determine and monitor the types and qualities of potentially hazardous marine debris present in areas inhabited by fur seals; (b) examine fur seals on the breeding islands each year to estimate the number bearing small net fragments or other evidence of having encountered lost or discarded fishing gear and other hazardous debris at sea; (c) obtain reliable estimates of the number of fur seals, by age and sex, being caught and killed in gill net and trawl fisheries in the North Pacific; (d) better determine the movements, feeding behavior and preferred foods of different age/sex classes of fur seals, particularly the first three age classes of females, at different times of the year; and (e) monitor pup production and the number of breeding males on St. Paul, St. George, and San Miguel Islands. Further, periodic fish surveys should be carried out to assess and monitor the abundance of preferred fur seal prey species in and near important fur seal feeding areas.

The National Marine Mammal Laboratory of the National Marine Fisheries Service currently is conducting a thorough analysis of all available information concerning the demography and dynamics of the Pribilof Island fur seal population(s). Part of the work is being done by staff scientists, the remainder by a contractor. These analyses are supposed to be completed within the next six months.

A multiple mark-resighting study is necessary to obtain reliable information on age-specific survival and reproductive rates. Depending upon the nature and extent of the annual variability in their rates, the study will take a minimum of three to five years. Costing $200,000-$300,000 per year, the program should be carried out on St. George and San Miguel Islands as well as on St. Paul Island.

Studies are being done, under the National Marine Fisheries Service's Entanglement Research Program, to determine and monitor the types and quantities of potentially hazardous marine debris in areas inhabited by fur seals. Also, the Service is to continue annual surveys to estimate and monitor the number of fur seals, at least on St. Paul Island, bearing net fragments or other evidence of having encountered lost or discarded fishing gear and other hazardous marine debris. If carried out properly, these studies should should indicate whether the number of fur seals found entangled in small net fragments is correlated with the amounts and types of debris present in the sea. If found to be so, one will then have a basis for judging the effectiveness of steps taken to prevent or reduce the at-sea dumping of net fragments and other potentially hazardous debris.

Efforts are also under way, within the context of the International North Pacific Fisheries Agreement, to obtain information on the number of fur seals and other marine mammals being caught incidentally in Japanese salmon and squid drift net fisheries in the North Pacific. Efforts to assess and monitor the incidental take in the salmon fishery may be adequate. Efforts to assess and monitor the incidental take in the Japanese squid fishery and by fishing vessels from other countries are marginal and may be insufficient to provide reliable estimates. As noted in response to an earlier question, observer coverage should be increased to cover at least 10% of each vessel-type and fleet engaged in the fishery. While the Commission feels strongly that the financial burden for such programs should be placed directly upon the involved foreign fishery, the U.S. contribution to such a program could be as much as $200,000-$300,000 more than is now being spent.

The National Marine Mammal Laboratory has started and, as we understand it, plans to continue radio-tracking and related studies. These are designed to better determine the movements, feeding habits, and feeding areas of fur seals in the vicinity of the Pribilof Islands and elsewhere along the west coast of North America. The studies presently are being carried out on a limited scale due to manpower, logistic, technical, and monetary constraints. Three to five years research, at an annual cost of $150,000-$200,000 (plus ship support), would be required to provide reliable information on seasonal movement patterns, feeding behavior, and possible important feeding areas in the vicinity of the Pribilof Islands and along the west coast of North America.

Conducting fish surveys to characterize and monitor potentially important feeding areas would take two to ten days, and cost $50,000-$200,000 per area, depending upon the location and size of the area. It would seem that much of this work could be done as part of planned fish resource surveys at little or no additional cost.

Pending completion of the aforementioned studies, at least two things should be done. First, ongoing efforts to reduce the loss and dumping of fishing gear and other potentially hazardous debris at sea should be continued and expanded. Second, as noted earlier, observer programs should be expanded to obtain more reliable information on the numbers of fur seals and other marine mammals being caught incidentally in fisheries, particularly the squid and salmon gill net fisheries, in the North Pacific.

Senator **Kerry**. Thank you very much, Dr. Fox, and I appreciate each of you taking advantage of the opportunity just to summarize. I do not know whether the assumption is that we Senators do not read the written texts or that we are incapable of reading the written texts, but I think that the opportunity to summarize certainly gives us more of a chance to have an exchange, and I think it is healthier.

Mr. Douglas, you talked in your summary statement about the choices we have to make, some hard choices, with no single solution and so forth.

Could you just characterize for us very quickly what do you see as the toughest choices facing us with respect to the reauthorization?

Mr. **Douglas**. I do not think there is any question that the toughest choice is how to answer the generic question presented by the Act—how do we protect marine mammals that interact in an ecosystem with fish and seafood that man has a need to take for protein and a legitimate right to do so provided sound conservation measures are employed? I think over the last several years some very pointed instances have brought this to the forefront.

Both the protection of marine mammals and the conduct of commercial fishing following such conservation measure are laudable endeavors. The question we must continually answer is "How do we permit both of these things to happen without one seriously conflicting with the other?"

This is a dilemma that just boggles your mind, quite frankly. I think that is obviously the challenge that we face, and somehow we have got to reach some kind of an accommodation.

I do not personally see, as I have looked at this, an ability to come down totally on one side. I think somewhere there has got to be a middle ground, and that is why both in my prepared statement and in my verbal statement I pointed that both the environmental groups who obviously have as their major concern the protection of marine mammals, and the domestic fishing industry whose obvious concern is to be allowed to fish and bring wholesome protein to our table, recognize the dilemma.

Representatives of those groups are meeting right now in an attempt to try to reach some kind of an accommodation of what I see as the principal dilemma facing both the Congress and our people.

Senator **Kerry**. Outside of the tuna-porpoise relationship, which relationships would you single out for us as being the most complex or confounding?

Mr. **Douglas**. Within the context of the Marine Mammal Protection Act, I believe it is clearly that portion that deals with the depletion aspect and what one can or cannot do with respect to a stock or population that is deemed to be depleted. That specifically is the embodiment of the more generic question that you raised earlier, in my opinion.

Senator **Kerry**. Now, there is no provision currently in the Marine Mammal Protection Act that permits the incidental taking of a depleted marine mammal species, and you have alluded to discussions that are going on between environmentalists and fishermen.

Is NOAA involved in those discussions?

Mr. DOUGLAS. Let me first, Senator, make a minor distinction in your preface there. There are provisions for taking of depleted populations, but not relative to commercial fishing.

Senator KERRY. That is what I was referring to.

Mr. DOUGLAS. Yes.

Senator KERRY. The provisions for incidental taking are the native and outside.

Mr. DOUGLAS. That is correct.

Senator KERRY. That is correct.

Mr. DOUGLAS. Just to be technically correct.

In answer to your question of whether NOAA is involved, we are not directly participating in those discussions. However, both Dr. Evans and I have met with representatives of both sides. Both sides are reporting constantly to Dr. Foster who, as I mentioned earlier, heads our Protected Species Office. It was deemed earlier the better part of wisdom that the two sides try to see if they could come to some conclusion without government being a party.

Obviously the National Marine Fisheries Service, Senator, feels a great responsibility to try to recommend something to this committee. If we were to indicate what our recommendation may or may not be, it might torque the discussions between the two sides. We prefer those discussions to go forward, as do the participants without direct NOAA participation. However, we are involved. Both sides know that we are interested; yes, we are talking to them, if that helps you.

Senator KERRY. And is there another yes to a specific option in the event they fail to come to an agreement?

Mr. DOUGLAS. There will be, yes, sir.

Senator KERRY. In the absence of a legislative amendment to address that problem, do you feel that you have the authority to issue either a general or a small take permit to fishermen?

Mr. DOUGLAS. Let me answer that for the record after I have talked more specifically with our lawyers on that, please, sir.

Senator KERRY. Fine. We will leave the record open, and I will look for that answer.

[The following information was subsequently received for the record:]

GENERAL INCIDENTAL TAKE PERMITS

Based on preliminary indications about the status of stocks of marine mammals that interact with commercial fisheries, there is little likelihood that NOAA/NMFS will be able to issue general incidental take permits in 1989, particularly if the narrow construction of the Marine Mammal Protection Act (MMPA) in Kokechik Fishermen's Association v. Secretary of Commerce, 839 F.2d 795 (D.C. Cir., Feb. 16, 1988), is allowed to stand. Kokechik held that if there is more than a remote likelihood that one species below its optimum sustainable population (OSP) or of unknown status will be taken during a proposed fishing activity, then no incidental take permits for any species can be granted for that activity, even if the incidental take has a negligible impact on the other species.

This holding rejects NOAA/NMFS' long-standing policy of issuing permits on a species by species basis. Before Kokechik, NOAA/NMFS issued incidental take permits for marine mammals not shown to be below their OSP, even if a depleted species would also be taken, as long as the agency determined that the species included in the permit would not be disadvantaged by the take. Protection of the species not included in the permit was provided by the enforcement provisions of the MMPA, and not by denial of the permit for non-depleted species.

The effect of Kokechik, combined with preliminary indications about the status of marine mammal stocks that interact with commercial fisheries, all but precludes the possibility that general incidental take permits will be issued in 1989 under current law. Preliminary indications suggest that all fisheries in west coast waters that interact with marine mammals have more than a remote possibility of incidentally taking some species below OSP or of unknown status. For example, all west coast fisheries currently holding incidental take permits interact in varying degrees with northern fur seals, northern sea lions, California sea lions, harbor seals, or gray whales. All of these marine mammals are either depleted or can not be shown to be above OSP. In east coast waters, for which there are far less reliable data, available data indicate that it is unlikely that any marine mammal incidentally taken by fishermen can be shown to be at or above its OSP level.

SMALL TAKE EXEMPTIONS

Small take exemptions may be issued, as an alternative to general incidental take permits, to U.S. citizens engaged in commercial fishing operations which incidentally, but not intentionally, take small numbers of non-depleted marine mammals, if the Secretary finds that such takings will have a negligible impact. In the opinion of the Office of General Counsel, NOAA, small take exemptions can be given for incidental takings of marine mammals of unknown status, notwithstanding Kokechik, because such exemptions are not subject to sections 103 and 104 (16 U.S.C. §§ 1373 & 1374) of the MMPA. Such exemptions could not be granted under Kokechik, however, in cases where there is more than a remote possibility that depleted marine mammals would also be taken in the fishing activity.

A small take exemption would not be available, therefore, to those fisheries which are known to take depleted species; nor, would a small take exemption be available for those species for which there is insufficient data to make a negligible impact finding. This exemption would also be unavailable to those fisheries which need authority for intentional takes of predator or nuisance animals. Most west coast fisheries would have difficulty in qualifying for a small take exemption. There is insufficient data at the present time to determine which east coast fisheries, if any, need or could obtain small take exemptions.

Mr. **Douglas**. Thank you.

Senator **Kerry**. Now, as everybody here knows, in 1984 we amended the Marine Mammal Protection Act to place conditions on any nation which exports tuna to the United States, and the act required each nation to have a regulatory program for the protection of marine mammals comparable to the United States.

Last month, I think it was, the Commerce Department finally got around to issuing what was called "interim final regulations" which are purported to carry out that particular standard.

My question is why was the development of regulations permitted to drag on for four years?

Mr. **Douglas**. Senator, let me say that we are not particularly proud of how long it took to do those regulations. There were a number of problems that occurred, and Mr. Fullerton, who is here with me, is in a much better position to talk to you more in detail about some of those problems. I would like to have him join me in answering this.

But by and large, we did not want our actions to defeat what we felt was the intent of the particular amendment to protect porpoise. When we begin to look at the variety of data as to what amount of imports from foreign countries were coming into the United States and what some of the alternatives these foreign nations really had, we discovered that some of possible regulatory actions could drive these nations out of the program that was set up by the Inter-American Tropical Tuna Commission, the IATTC. We did not want to do that because we felt that was clearly the most viable opportunity for us to begin to reduce porpoise mortality through the foreign nations.

If our regulations caused these nations to develop alternative markets and to no longer send imports to the United States, which we saw, by the way, Mexico doing at a time when they were in fact embargoed, then we would have had a hollow victory. If the foreign nations rather than complying with our regulations just stopped shipping to the United States, the United States would no longer have any kind of leverage over them whatsoever, and they could fish with impunity on porpoise. We did not think that that was in fact what the Congress intended or what the law wanted.

Senator **Kerry**. Does that raise a question?

Mr. **Douglas**. What I am saying, Senator, is there is a very fine balance here which we tried to achieve.

Senator **Kerry**. Well, I understand, but I hear you articulating a kind of Catch-22 here.

Mr. **Douglas**. Yes, it was.

Senator **Kerry**. What you are saying is that we have a remedy, but it is not a remedy because if we implement the remedy, we in fact wind up with these people finding other markets, and then there is no cooperation, but on the other hand, if there is no cooperation anyway, we are just going around in a circle.

Mr. **Douglas**. Well, I think it is a remedy——

Senator **Kerry**. Well, let me just finish the question.

The question then is in this reauthorization process, should we be looking for a different remedy? Should there be something other than the banning of imports of their tuna to our market? Should we look to other aspects of a potential relationship with these import nations, and consider whether or not we should not have other levers that might be more meaningful which might in fact get action?

Mr. DOUGLAS. Senator, let me say that we think that this process could be a remedy if it is handled appropriately and achieves some degree of compliance by the foreign countries. If the foreign countries believe that over time they can come into compliance and that burden is not too great on them, then we think we can achieve it through this process.

Now, with respect to whether or not, therefore, we have found an appropriate remedy or whether we ought to seek additional remedies, quite frankly, I have not thought of that. I think we should wait and see whether our remedy proves to be appropriate or not. I cannot identify off the top of my head what other remedies the Congress might come up with, but I have not really given that any thought.

Senator KERRY. Have you ever come to the point where you have in fact banned the importation of tuna from any nation?

Mr. DOUGLAS. Yes.

Senator KERRY. Which?

Mr. DOUGLAS. Mexico. Let Mr. Fullerton give you the details on it. We have done that, sir.

Senator KERRY. You have been trying to pitch it over to him several times.

Mr. FULLERTON. We are both rowing the same boat, Senator.

Senator KERRY. I understand that.

Mr. Fullerton, your moment has arrived.

Mr. FULLERTON. Gee, thanks. I am not so sure I like that.

Yes, we have. We had Mexico under a banned importation for two years.

Senator KERRY. And the effect?

Mr. FULLERTON. They sold their tuna to Europe rather successfully during that period of time.

Senator KERRY. And did you then lift the ban?

Mr. FULLERTON. Yes, we did.

Senator KERRY. So what do you think about my question to Mr. Douglas? Are you prepared to say that there is another remedy that might act as a real lever, that does not have such a loophole in it?

Mr. FULLERTON. I think that the remedy we are trying should be given a chance. If it is not successful, I think we have the ability under the present law——

Senator KERRY. Well, we have had four years to try it.

Mr. FULLERTON. Well, let me say that it was a very delicate operation to get those regulations. We developed some almost over a year ago which were not acceptable to either the tuna industry or the foreign nations or we were advised by the IATTC, which has the best connections with those foreign governments, that it just would not work. And so we went back to the drawing board and developed a whole new set, the ones that now are in interim final phase.

And as a result, we would like to give these a try. If it does not work, we will have to go tighter.

Senator **Kerry**. The Mexican example that you cite was because of the seizure of vessels and not because of the tuna/porpoise, however?

Mr. **Fullerton**. That is correct.

Senator **Kerry**. So you have never really done it with respect to the purpose problem?

Mr. **Fullerton**. No.

Senator **Kerry**. Now I know why they got you here to answer the question.

Let me ask Mr. Fox. Maybe you would address the question along the same lines.

Before I turn to you, however, I do want to finish one other question, if I can, with Mr. Douglas.

What is the justification for giving a foreign nation an additional three years until 1991 to reach kill rates that are comparable to the United States?

Mr. Fullerton, would you like to answer?

Mr. **Fullerton**. It's a matter of being able to get the necessary statistics and also not do it on a one-year phase because—it is pretty hard to get an average on one-year.

Many of them, like last year in 1986, they were four times as high as we were on the kill per ton of fish. Now they are down to half that amount. We felt to bring them on board would take a little time to give them a chance to get their gear ready, get their regulations, get their observer program in full swing and at the same time bring them into compliance within the five-year period, which two years have already gone by.

Senator **Kerry**. I understand your rationale. My question was more of what is the statutory authority for that.

In other words, do the amendments which we passed, in fact, permit you to do that?

Mr. **Fullerton**. We believe so, yes.

Senator **Kerry**. If we were to say we do not believe so?

Mr. **Fullerton**. Then I think we would have to follow your advice.

Senator **Kerry**. That would be a first.

I do not mean that. I really do not.

I have some more questions, but go ahead, Senator Breaux.

Senator **Breaux**. Thank you, Mr. Chairman, and I thank the panel.

You know, I think this hearing has really proven to be an embarrassment. It is an embarrassment to me as a former chairman of the committee in 1984 that wrote the requirements to provide for foreign products exported to this country to be banned if they do not have a comparable program to ours.

I think it should be an embarrassment to our government and specifically to you gentlemen who are in charge of getting the regulations out to implement the law.

It should be an embarrassment to the environmental community for not bringing this up as a public concern sooner than now.

There is enough embarrassment to go around is what I am saying. There is no excuse.

The Congress passed a law in 1984, and in 1988 we still do not have final regulations in place. The comment period is still extended to May of this year, and there are no regulations to address a problem that we addressed legislatively four years ago.

For the life of me, I cannot see why it is so complicated. The burden should be on the foreign country, not on us. We have a program, and the only thing the law said in 1984 was that the foreign country that exports tuna to the United States should have a program comparable to ours, and ours is already in place. Our industry has been following it and doing an excellent job by anybody's standard.

So the only thing we had to do was say, country, come show us that you have a program that is comparable to ours, and that your take is comparable to our take. That was it.

Yet four years later, we still do not have final regulations in place. That is an embarrassment, and I do not think we can color it any other way.

Jim, do you have any comment on that? Did you get any pressure from the State Department saying go easy on Mexico, Panama, Venezuela or anything? Did anybody contact you and say, hey, do not rush this?

Mr. **Douglas**. No, sir.

Senator **Breaux**. It was all your responsibility?

Mr. **Douglas**. We share your embarrassment. As I said earlier on, we certainly are not proud of the fact that it took four years. We can tell you all of the steps that went forward. We have a chronology which we would be glad to show you if you like.

Again, it is not one of our shining stars. We understand that. What we are interested in now is in trying to move these regulations forward. They will become effective on April 18. There is a 30-day waiting period. The comment period extends for 60 days, which carries that into May. We can still amend them if the comments indicate that they need amending. Of course, you can always amend a regulation anyway even after it is in place if it is deemed appropriate.

Senator **Breaux**. With regard to the situation that the Chairman brought up regarding the Mexico embargo that we did in the 1980s, it clearly worked.

You raised a question in your formal statement that we went a little bit slow because we were concerned about driving the countries to export the product somewhere else. Well, that was the exact situation when we put the embargo on Mexico in the 1980s because of their reluctance to stop seizing U.S. tuna vessels, and it worked. We kept it on for about six years. From 1980 to 1986, I think, not the period that you said, was the time that it took before the embargo was taken off.

It simply worked very well. Mexico ended up with tuna in cold storage, more than they could store, and they realized that embargo was having an effect. They stopped seizing the U.S. tuna vessels, and now we have removed the embargo.

So the consequences of the regulations should not have been a concern because we had an exact example of a tuna embargo prior to this situation developing. It worked very, very classically.

So I do not buy the reasoning that we went slow because we were concerned about them going to other markets. The one time where we did it before, they did not do that. They went to the European market, and it dropped so far that they were hurting dramatically and ended up not selling any of their tuna; therefore, they started abiding by the law.

Is that not basically correct?

Mr. **Douglas**. In that instance.

Mr. **Fullerton**. Basically, I think you are correct, but the embargo as far as stopping their sale did not work. They sell most of their fish in the European market.

Senator **Breaux**. The purpose of the embargo was not to stop them from selling it. The purpose of the embargo was to stop them from seizing U.S. tuna vessels.

Mr. **Fullerton**. But the point is that during that period of time, I do not think it did anything for the protection of porpoise. If we can keep them——

Senator **Breaux**. It was not designed, it was not implemented under the Tuna-Porpoise Act. It was implemented under the Fishermen's Protective Act. The purpose was not to have anything to do with porpoises. The purpose in that situation was to prevent them from seizing U.S. tuna vessels.

Is that not correct?

Mr. **Fullerton**. That was what the embargo was for.

Senator **Breaux**. Right, and it worked.

Mr. **Fullerton**. It worked in what sense?

Senator **Breaux**. It worked in that they stopped seizing U.S. tuna vessels, and that is why we removed the embargo. They stopped seizing our vessels. It had nothing to do with the porpoise problem. The embargo was not placed on Mexico in the 1980s because of the porpoise problem. It was because they kept stealing our tuna boats.

Mr. **Douglas**. The Senator is certainly correct that Mexico did get in line with respect to seizing our vessels and has not done so since. Well, they have but the State Department has been able to work that out. At least we are in an uneasy alliance with them at the present time with respect to that.

Senator **Breaux**. I do not want to debate that point too much. I believe the record is pretty clear on the thing.

What about the proposed regs that we have, the final regs? Do they require that the foreign nations have an observer program based on the IATTC standards.

Mr. **Fullerton**. Yes.

Senator **Breaux**. It does?

Mr. **Fullerton**. Yes.

Senator **Breaux**. Are you sure about that?

Mr. **Fullerton**. Yes.

Senator **Breaux**. Do they have to use the IATTC observer program?

Mr. **Fullerton**. They can either use the IATTC or they can establish one of their own.

Senator **Breaux**. Oh, good. Okay, we are going to have a Venezuelan observer telling us that everybody is fine down there?

Mr. **Fullerton**. With the IATTC program, they use native observers. They do not use other foreign observers.

Senator **Breaux**. Is it possible in the interim and final regs that have been proposed for the foreign nations to select their own observer and hire their own observer and that we would receive his reports on what amount of porpoises they are taking and rely on that?

Mr. **Fullerton**. It is possible, yes.

Senator **Breaux**. That is right. When Noriega hires an observer to go on a Panamanian boat and he says we are not catching any porpoises, it sounds like it may be a little shaky as far as the reliability of that.

Why did we not require them to do the IATTC observer program, that they would have to go through the IATTC? Why not? Why should it not be in the regs?

Mr. **Fullerton**. Well, there are some nations that may not want to involve themselves with IATTC. You know, Mexico does not formally belong to the IATTC, but they enjoy the use of the program. They think it is very good, and they are complying with the IATTC in cooperation for the observer program and fixing their nets and training their skippers and having a skipper review panel, all those sorts of things.

But some nation may not want to become involved with the IATTC, so we left it open so they could still have their own observer program. They would have to document that to us, and they would have to check and make sure that observer program is going on.

But we did not close the door saying we force you to join the IATTC program.

Senator **Breaux**. Mr. Chairman and gentlemen, I do not want to belabor it. I think that the record is clear. I think at least this is an opportunity to correct the past in the sense that we have moved too slowly. As I said, there is enough blame to go around with regard to it not being done as promptly as it should have been. I think as a result of these hearings, some real progress ultimately will be made.

Thank you.

Senator **Kerry**. Thank you very much, Senator Breaux.

Let me ask just one quick question or two before I turn to Senator Pressler.

Dr. Fox, I understand the Commission on a number of different occasions urged the Commerce Department to take action with respect to the regulations. Is that a fair statement?

Dr. **Fox**. Yes. We sent at least five comprehensive letters to the National Marine Fisheries Service urging rapid implementation, giving them advice as to what we thought would be appropriate, and commenting on the drafts that they had developed. We began as early as July 1984 urging the National Marine Fisheries Service to implement the provisions of the 1984 amendments.

Senator **Kerry**. Is that kind of delay typical of agency responsiveness to requests by the Commission? Is this unusual or is this average? I see you are sitting in between them, so you are in danger here.

Dr. **Fox**. I would say that responsiveness varies. On this issue, the response has been very long and drawn out.

Senator **Kerry**. Can you articulate to us more clearly why it has been long and drawn out? Was there some other interest at work here? Is there an undercurrent?

Dr. Fox. I know of no other interests that were involved in delaying the process.

Senator Kerry. Mr. Douglas is shaking his head also. So this is just something that happened.

Do you believe, Dr. Fox, that the Marine Fisheries Service porpoise population monitoring program is sufficient to meet the requirements of the 1984 amendments?

Dr. Fox. Let me try to answer the question this way. In amending the act in 1984 to directly permit the U.S. tuna fishery to take porpoise stocks, Congress reversed the burden of proof to demonstrate no harm that is encompassed within the Marine Mammal Protection Act from the user to the government.

In doing so, Congress was very wise in authorizing a monitoring program in order to back up this change of burden.

But what happened was typical of this type of a situation. You see, in the Marine Mammal Protection Act, one of the fundamental principles is that the burden of proof is placed on the individual or entity that wishes to utilize that stock. Congress reversed that burden in this case.

What usually happens when you do not have a user-type of a burden is usually insufficient funds are available, insufficient manpower is available, insufficient equipment is available, and you just can not put enough resources on the job to do the job right.

Now, I really do not think it is all the National Marine Fisheries Service's fault. They have some very, very good people. They have good equipment. They want to do their best. The research program is trying to do its best. It is just resource short when you reverse that burden of proof.

If you look at the Service's budget in real dollars, it has been flat or declining for a decade, even with the increases in its responsibilities.

Senator Kerry. This is a simple question. Is this issue important enough, does it mean enough to the ecosystem and other interests to spend additional money in order to guarantee that we can do what we are supposed to be doing?

Dr. Fox. I think it is essential to do so. I think the burden of proof needs to be appropriately placed in all conservation legislation as it was in the Marine Mammal Protection Act, and if that burden of proof is reversed, I think it is incumbent upon the Congress of the United States to make sure that it is appropriately carried out and, therefore, the sums that are necessary to do so are made available by the proper source.

Senator Kerry. How much does NOAA spend on the 95 percent coverage of the U.S. observer program?

Mr. Douglas. About $2.5 million. That is 100 percent domestic.

Mr. Fullerton. You are talking about the domestic tuna observer——

Senator Kerry. Yes, our observer program.

Mr. Fullerton. A little over $2 million.

Senator Kerry. Can you afford full coverage?

Mr. Fullerton. No.

Senator Kerry. Is it more effective to have all U.S. sets observed?

Mr. **Fullerton**. We think that we could do it with 50 percent and get the same results.

Senator **Kerry**. You really do?

Mr. **Fullerton**. Yes, and we ran both programs last year at the same time just to try to give us a check on that and found out that the results came out almost identical.

Mr. **Douglas**. Senator, you realize that there was only one 12-month period in which we in effect had 100 percent coverage?

Senator **Kerry**. I was not aware of that.

Mr. **Douglas**. Yes. That was basically to validate whether statistically we could get by with less than 100 percent coverage, and we believe we can. So it was only in calendar 1987 that we had 100 percent coverage. So those are the figures that Mr. Fullerton is speaking of. That is an atypical year, obviously.

Senator **Kerry**. Let me turn to my colleague, Senator Pressler, and then we are going to have to try to complete this panel. We have a film that we think is important that we want to show and a third panel, and we have just a one-member panel in between that. So I would like to try to keep this moving.

I see we have a sparcity here of Democrats, so if I could ask you to chair for a moment while I step out, I would appreciate it.

OPENING STATEMENT BY SENATOR PRESSLER

Senator **Pressler**. I will ask Senator Wilson to chair, because this is not one of the burning issues in South Dakota.

Mr. Chairman, I commend you for scheduling this hearing on the Marine Mammal Protection Act and I look forward to consideration of the testimony presented by today's panelists.

We are concerned about protection of marine mammals and the effectiveness of our federal agencies which have responsibility for them. Today we are specifically addressing the issue of porpoise mortality caused by purse seine fishing for tuna. A National Marine Fisheries Service interim final rule regulating the importation of yellowfin tuna taken in association with marine mammals is currently undergoing a 60-day comment period. The goal of the rule is to encourage foreign importers of yellowfish tuna from the eastern tropical Pacific Ocean to implement effective programs to prevent or reduce marine mammal mortality.

The American tuna fishing industry should be commended for significantly reducing porpoise mortality associated with its fishing operations. Between 1972 and 1987, the mortality rate went from 300,000 to less than 20,000. Concerted efforts by the industry, government agencies and environmental groups to develop equipment and techniques to let porpoises escape from nets are to be credited for this dramatic decline. The American tuna fleet is now the model for the rest of the world. It has shown that mortality reduction is technically achievable. The new rule calls for foreign fleets to approach an incidental mortality rate comparable to that of the U.S. fleet.

We hope the regulations will effect a reduction in the marine mammal kill rates of foreign fleets. However, we do not want to "win the battle but lose the war." The Service is rightly concerned about alienating foreign tuna industries from participating in reduction efforts and taking their business elsewhere. It does no good to make the regulations so stringent that the foreign fleets throw up their hands and continue with kill rates four times that of the U.S. fleet. We should encourage their efforts and freely provide technology transfer assistance to them.

Mr. Chairman, I look forward to working with you and the other members of the Committee and the National Ocean Policy Study on these pressing issues related to marine mammal protection.

We are all concerned about this issue, the ecosystem and environment, but I will turn this over to Senator Wilson.

Senator WILSON [presiding]. Thank you, Senator Pressler.

Gentlemen, we thank you, and in the interest of accommodating the other panelists and allowing you to go about your business as you have already been generous, we will excuse this panel if there are no further questions.

Our next witness is Dr. Jim Joseph, but I think perhaps this would be an appropriate time to show the film. Afterward? Okay.

Then let us have Dr. Joseph come forward now.

Our sole member of panel two is Dr. James Joseph, the Director of the Inter-American Tropical Tuna Commission at the rather famous institution for which I have some affection parochially, since it is located in my hometown.

Dr. Joseph, welcome. We are grateful to you for being here. I bring you greetings, by the way, from my favorite constituent, my wife.

STATEMENT OF DR. JAMES JOSEPH, DIRECTOR, INTER-AMERICAN TROPICAL TUNA COMMISSION

Dr. JOSEPH. Thank you, Mr. Chairman. As you noted, my name is James Joseph. I am the Director of the Inter-American Tropical Tuna Commission, and I have been in that position for the last 20 years. I am a scientist by training and an international servant by profession.

I have worked 30 years in the field of fishery science and the conservation of fisheries resources.

I want to thank you for inviting me to present testimony here before this committee, particularly because recently there has been a lot of publicity about dolphins, a lot of statements implying that nobody knows how many dolphins are being killed, nothing is being done about the kill, and that the non-U.S. nations do not have much concern about the problem. I hope that I am going to be able to correct this misinformation.

Mr. Chairman, I understand that I have 10 minutes because I am the sole member of this panel, so I will probably use all of the 10 minutes.

For those of you who are not familiar with the Inter-American Tropical Tuna Commission, the acronym of which is IATTC, it is an international fisheries organization. It was established in 1949, and its purpose was to conduct studies of the tuna and tunalike resources of the eastern Pacific and, based on these studies, to make recommendations for their conservation and for their management.

As you are aware, this tuna-porpoise problem that we are here talking about started in the late 1950s and early 1960s. Basically what happened is that the fleet, because of economic problems that operated in the fishery for tuna in the eastern Pacific, had to improve their efficiency. They converted from bait fishing to purse-seine fishing and in the process capitalized on the fact that tuna and porpoise associate.

At that time, basically the whole fishery was a U.S. fishery. Nearly 100 percent of the catch was made by U.S. boats. As time progressed, foreign nations became more involved in the fishery, but because it was predominantly a U.S. fishery, the U.S. established a program to try to resolve the dolphin mortality problem.

As the foreign fleet increased in capacity and the U.S. fleet declined in capacity, the Inter-American Tropical Tuna Commission recognized that in order to resolve the problem or to improve success of catching tuna without killing dolphins, there would have to be international cooperation and, as such, they mandated the Commission in 1977 to undertake a program to study the problem.

Basically, the program is involved in three things: One, the first responsibility was to estimate how many dolphins are being killed internationally by the international fleet. When I say international, I mean all countries, the United States as well as non-U.S. countries.

Number two, to assess the impact of this kill on the populations of dolphins.

Number three, to introduce measures to reduce the kill of dolphins to the lowest extent possible.

The Commission, as I say, assumed this responsibility in 1977, I believe. It was 1979 before they were funded and a program was begun to attain the objectives of the program.

Now, what I would like to do is explain to you just what we are doing in the other countries with respect to these three things. First and foremost, I would like to talk about the observer program. The observer program was designed to send trained technicians to observe what is going on abroad tuna boats.

The United States has such an observer program which has operated for several years. The Commission started its program in 1979. Its objective was to obtain 33 percent coverage of all of the trips operating in the eastern Pacific, and we chose that particular number through statistical analysis.

Based on data available to us, we designed experiments that indicated that if we had 30 to 33 percent coverage, we would have a statistically significant sample of the kill of dolphins on boats on which observers sailed.

The going was slow at the beginning. We had a difficult time getting together technicians to go to sea, and getting the cooperation of all of the nations to carry these technicians, but we continued with our efforts.

Our program entails training technicians in each country, and placing them on vessels flying the flag of that country. This was decided early on in the Commission when all of the countries met, including the United States, as being the most appropriate, practicable way, I should say, to do it; not statistically, perhaps, the best but the most practical way to do it.

What had do is hold training courses in all of the participating countries. We hire individuals who are graduate biologists or the equivalent to go on board these particular vessels and to collect data.

I do not think it is a fair representation to say that these particular scientists are any less efficient or any less dedicated to collecting realistic data than scientists from any other country, from the United States or anywhere else. They are scientists. They are in our employ. They collect data for us.

The data does not go directly to the countries from whose vessels they are collected. The data goes into our data bank and is used to estimate the kill of dolphins for the entire fleet.

The kill of dolphins, as I think some of the earlier testimony shows, was quite high early on at the beginning of the fishery. As many as 300,000 or 400,000, and in some cases, even 500,000 animals were estimated to have been killed per year, although I would quickly hasten to add that the estimates for those years were probably very poor because there were very few samples.

The kill declined rather rapidly, and during, the last two years, has revolved around 80,000 to 130,000 animals. In fact, in 1986 the kill was between 124,000 and 129,000 animals for the entire fleet, and for 1987 the kill was between 79,000 and 82,000 for the entire fleet.

In our opinion, those are the best estimates of the kill available for the series of years since 1960, and we feel that is attributable to the International Observer Program.

Now, that reduction in kill of 40 percent is a pretty good record, Mr. Chairman, but in my opinion, it is not good enough. We really should do better, and we must do better, and in my opinion, we are going to be able to do better.

Next I would like to talk about how we can do better, and how we utilize information collected aboard the vessels by the observers to attempt to transfer knowledge concerning fishing technology to the fishermen of other nations. There are proven techniques that reduce dolphin mortality. Our observers, take notes of all the activities going on relative to dolphin fishing aboard the vessel. When a large kill is observed, observations are made as to what the parameters were involved in that kill. That information comes back to the laboratory, to the offices we maintain throughout the Eastern Pacific, where it is examined, and the reason for the kill is identified. Then meetings are set up with the captains of those vessels that experienced those difficulties.

In this way, we hope that we will be able to reduce the kill, and in fact, we think, Mr. Chairman, although we cannot take credit for all of the sharp decrease in kill from 1986 to 1987, which was almost 40 percent, we think that some part of that reduction in kill was a direct result of the program that we maintain to transfer technology to the other fleets.

In addition to the transfer of technology, we conduct research on other aspects of dolphin reduction. We have, for example, done a lot of work looking at the problem of trying to reduce mortality in what are called night time sets, or I should say sundown sets. These are sets that are made in the evening as the sun is going down, and the set is not completed until after dark. Because of the difficulties of seeing, porpoise mortality or dolphin mortality is higher during that time.

So we entered into a program to look at the possibility of using different types of lighting systems to light up the backdown channel or the net during this process, and we had a lot of cooperation from light companies and other groups. We also worked jointly with the United Nations Environmental Program on that particular problem, and they funded a lot of it, and we were able to develop a lighting system that has proven fairly effective in lighting up the backdown channel, and we have provided lights to a number of vessels throughout the international fleet, and particularly in the non-U.S. fleet. Over the last year, we have provided 40 such lights to the vessels of the non-U.S. fleet, and we think this has had an impact on reduction of dolphin mortality, and we think it will have a further impact on the reduction of dolphin mortality.

The third thing, Mr. Chairman, because my time is running out, that I would like to comment on that we do is we attempt to assess the impact of dolphin mortality on the populations of porpoise. Now, there are two ways that generally one can do this. One way is to use research vessels, go to sea, and count the schools of dolphins in a specified manner and thus estimate their abundance. That is the best way to do it, but it is very expensive. The other way is to utilize data collected by the observers who are instructed to count dolphin schools on the fishing track, to identify their species, to estimate how many are in the schools, and then utilize that information to construct a measure of the abundance of the schools.

Now, that particular approach has some difficulties in it because we do not know how many times a particular school may be counted, et cetera. But what we would like to use that information for is to compute indices of abundance to tell if the populations are going up or going down.

We started this program quite a few years ago when we first started the observer program. Subsequently, Congress, I believe, has suggested that that kind of a program be undertaken. But we had already started on it. And we have estimates that date from 1975, I believe, that go through 1986, depict the trends in the abundance of dolphins.

We have the most recent estimates available in the literature or anywhere else. The estimates indicate in every instance that from the mid 1970's to the early 1980's, the populations of dolphins declined significantly. Then they show since the early 1980s, I should say, really from 1980 to 1986, that most of the populations appear to be stable. There is no significant trend either positive or negative except for two populations of dolphins, the eastern spinner and the southern whitebelly spinner, which show a positive growth in population size.

Now, I am going to reemphasize that this is not the best way to estimate dolphin abundance, the way we are doing it, but we think because of all of the data available, and money being spent to collect that data we should use it to get the best estimate we can.

The very best way to estimate abundance is from research vessels. The National Marine Fisheries Service has a five year program to do that, and we are hopeful that the results will be meaningful at the end of that five year program. If we really want to look, though, at estimating dolphin abundance in the most efficient way, what we have to do is be prepared to spend a lot of money, not $500,000, not $1 million a year, but in the order of $10 million to $20 million to really do a realistic assessment of the abundance of the populations.

Now, Mr. Chairman, just in concluding, I would like to make some comments with reference to the foreign fleets and their cooperation, and I want to make these references because really, I understand from the testimony here this morning that there is consideration being given to embargoing the entrance of tuna from those countries into the United States, in an effort to reduce dolphin mortality, Obviously the United States should take leadership in setting standards for dolphin safety.

The United States fleet has had a long experience, 30 years of fishing tuna on dolphin. They have learned a lot. They have reduced the kill significantly, and it can be reduced further.

The non-United States nations are interested in reducing the kill. All of the nations that fish tuna in the eastern Pacific Ocean are cooperating voluntarily in the program that the Commission maintains. They allow us to put our technicians on their boats to estimate the kill. What we want to do, in my opinion, is to encourage them to continue doing that. If we take action that discourages them from that, if we take action that forces them to foreign markets, then they are no longer going to have as strong an incentive to cooperate in the program. That would be my opinion.

The result would be that we would not know how many dolphins are being killed. We would not have the information to make reasoned decisions for dolphin protection.

Senator KERRY. What is the incentive for them to cooperate in the first place?

Dr. JOSEPH. The incentive for them to cooperate in the first place I think is that they realistically want to reduce the kill of dolphin, and they are making efforts to do it. You must remember, sir, that they have not had 30 years of experience fishing in the fishery. Most of the skippers have a mean residence time aboard a vessel of probably two or three years. They are new boats, they have not had a long time at it.

I think that we need to allow them enough time to pick up the technology that the United States has. We are doing everything in our power to transfer that technology to them. And if we want to realistically protect dolphins—and I think that is what we are all interested in doing is reducing the kill to the lowest possible level—then what we have to do is maintain the cooperation of all of the nations, because if we do not—and I am going to repeat myself again—I think what is going to happen is we are not going to know what is going on. The dolphin kill is going to be going up because there is going to be no transfer of technology.

Senator KERRY. Let me ask you, what percentage of IATTC vessels are currently using gear and/or procedures which are equivalent to U.S. procedures?

Dr. JOSEPH. Well, Mr. Chairman, the percentage of vessels, when you say IATTC vessels, I assume you are talking about non-U.S. vessels. The non-U.S. vessels, a very high percentage, in the high 90 percentile, are using escape panels, and most of the procedures that the United States uses. Not all of them use them as effectively because they have not had the experience in using them that the United States has.

Senator **Kerry**. So you are saying 90 percent of those non-U.S. vessels that are part of the IATTC are using gear and procedures equivalent to U.S.

Dr. **Joseph**. What I am saying is that they are using escape panels——

Senator **Kerry**. That is not what I asked. When you say escape panels—you are limiting it somewhat. I am asking you broadly, are they using all the gear and all the procedures, or are you saying they are just using part of the gear and part of the procedures?

Dr. **Joseph**. They are using part of the gear and part of the procedures, and I cannot give you the figures on the percentage use of every measure that the United States takes.

I will add, Mr. Chairman, though, that the Commission at its 44th meeting unanimously passed a resolution requesting the member governments and nonmember governments alike to incorporate into their laws measures, a series of measures designed to protect porpoise, basically the same sort of measures that the United States uses, those that have proven effective.

Now, since then—and that was done a year and a half ago—at least one country I know, Mexico, has done that. They have issued laws that require their vessels to utilize those measures. I know that Venezuela is in the process of doing that, and I know that Ecuador and Vanuatu have discussed those regulations with us and are in the process of evaluating them.

Senator **Kerry**. Are all of the nations with tuna fleets in the eastern tropical Pacific, are they all members of the IATTC?

Dr. **Joseph**. No, Mr. Chairman, the members of the IATTC are Panama, Nicaragua, the United States, France, and Japan. Mexico was a member, as was Costa Rica, but they left for other reasons, although Costa Rica is in the process, at least expressing interest in rejoining. Venezuela, El Salvador and Guatemala are showing interest in joining.

Senator **Kerry**. But those are the ones with tuna fleets who are still outside of it, correct?

Dr. **Joseph**. Well, there are other nations with tuna fleets——

Senator **Kerry**. Who else with tuna fleets are outside of it?

Dr. **Joseph**. Starting south, Ecuador, Costa Rica, El Salvador, Mexico, Vanuatu, Venezuela, Spain are the fleets, but all of those nations who have fleets that fish tuna cooperate in our program.

Senator **Kerry**. And among the international fleet, are there certain countries that are responsible for extremely high mortality rates among porpoises?

Dr. **Joseph**. Well, Mr. Chairman, unfortunately we do not provide information on the kill of individual nations.

Senator **Kerry**. Go ahead. I heard you, but I just wanted to see whether Senator Wilson—we have a vote that is on, and I want to try to keep this rolling if we can.

Dr. **Joseph**. We do not provide information on the kill of individual nations. The kill, as I said, the mortality on porpoise in 1986 was 124,000 to 129,000 animals. In 1987 it was 79,000 to 82,000 animals.

I think you heard some figures here earlier that the U.S. kill in 1986 was 20,500, and about 14,000 in 1987, so subtraction tells you roughly what the kill is of non-U.S. nations.

If you then proportion that kill out to the size of the fleets of the other nations, a rough idea of kill by nation can be approximated.

Senator KERRY. You mentioned I think in your testimony, at least in the submitted testimony, that in 1986 and in 1987 there were increased rates of mortality among porpoises, and yet you also said that you would declare a kind of cautious optimism for the future, we should not move into a banning status or otherwise.

If you have those increasing rates in those two successive years, where does your cautious optimism come from?

Dr. JOSEPH. Well, Mr. Chairman, the difference between 1986 and 1987 was 40 percent. That was a decrease of 40 percent, from 1986 to 1987. That is a pretty substantive decrease.

We should remember, too, Mr. Chairman, that the mortality on porpoise to a degree, the total mortality, is proportional to how much fishing effort there is on porpoise, and if you look in my written testimony in figure No. 3, I believe, or 2, it shows the total number of sets on porpoise, and you will see that in 1985, 1986 and 1987, effort on porpoise, on dolphins, went up compared to the previous years when fishing was at a much lower scale, and during a time when the kill of porpoise or the mortality on porpoise was much lower.

But my optimism comes from the fact that in face of increasing fishing effort on porpoise during 1985, 1986 and 1987, the kill from 1986 to 1987 went down by 40 percent. My optimism also is based on the fact that we do have all of the nations in the eastern Pacific who fish tuna in association with dolphins involved in the program, and in my opinion eager to try to resolve the problem with respect to dolphin mortality.

And that is why, Mr. Chairman, I keep saying that what we need to do is consider the years of experience of the non-U.S. fleet relative to the U.S. fleet and to not set standards for non-U.S. fleets that are unachievable because if we do, then the dolphins are going to suffer, in my opinion.

It is better, I think, in my opinion to try to set some kind of goal that forces nations to really work as hard as they can on reducing dolphin mortality, but that we realistically can expect to achieve.

Senator KERRY. Now, I really want to follow up on a couple of questions. I want to go vote, but particularly I am disturbed by this notion that you said we do not keep, we do not know which nation is responsible, and we cannot really assign that responsibility, which seems to undercut the whole notion of our placing restrictions on foreign governments if we are not aware of who is more culpable and who is not in that kill process.

So let me just hold that. We have a couple more questions, then we will switch to the next panel. We will stand in recess until I can get back from voting.

[Recess.]

Senator WILSON. Ladies and gentlemen, in the interests of time, let us reconvene. Senator Kerry has gone to vote, and he will shortly return, but it is my understanding that Dr. Joseph had a comment that he wished to make to clarify the question about the

Commission's being able to reveal by nation what the compliance with Marine Mammal Protection Act quota kills has been.

Dr. JOSEPH. Thank you, Mr. Chairman, and I am sorry Senator Kerry is not here, but I assume he will read my response in the testimony.

Basically what I said is we do not provide statistics on the kill, the mortality of dolphins by nations. What we do, however, is maintain all of these statistics and we will provide them and do provide them to the nations at their request on whose vessels we place observers so that if nation A, nation B or nation C wants to know how many dolphins were killed by their vessels, we provide them with that information.

If they want to make that information public, which I think they probably are going to do, then they can do it. It is just not our place to make that public.

Senator WILSON. You say you think they probably are going to make it public?

Dr. JOSEPH. I would think that some of them will, and I think——

Senator WILSON. I think the ones with the low porpoise kill would, but not those that have a high one.

Dr. JOSEPH. Well, I think, Mr. Chairman, but I am getting out of my field of expertise here—I think that the proposed regulations are going to require non-U.S. nations in order to qualify for export to the United States to provide estimates of the kills by their vessels, and that is what I meant by making it public. They will use the information we provide to comply with that is my understanding.

Senator WILSON. I have just one final question. With respect to your comments about estimating dolphin abundance, you mentioned that to do the job properly, to do it from research vessels would cost somewhere between $10 million and $20 million.

What is the method by which the Commission assesses its members?

Dr. JOSEPH. The way the Commission assesses its members is set out by the treaty, and that is the members pay or contribute to the budget in proportion to the tuna that they utilize from the eastern Pacific Ocean.

Senator WILSON. And those figures are generated how?

Dr. JOSEPH. Those figures are generated by us, by the Commission itself. We maintain detailed records of the activities of all of the vessels in the eastern Pacific Ocean. We collect records from all of the fish processing plants that process tuna from the eastern Pacific Ocean. We look at purchase receipts, and we collect records from all of the transshipment boats that transship fish from the eastern Pacific around the world. That way we are able to compute how much fish ends up in which country that was caught from the eastern Pacific Ocean.

Going back to the $10 million to $20 million, Mr. Chairman, that is a rough approximation, but what I based that on was a large number of research vessels operating at the same time, and in my opinion, that is what it is going to take to get numbers that we are not going to have to be arguing over a lot in the future.

Senator **Wilson**. All right, I understand how you apportion as between the member nations the costs. What determines the level of assessment? What determines your overall budget? Is there a vote of the members?

Dr. **Joseph**. Yes, it is a vote of the members. Basically I am responsible for preparing a budget for the Commission, and the Commission then votes on the budget.

Then basically, in reality, who determines what we get is the United States because the United States contributes the major portion because they are the major consumer of tuna from the eastern Pacific, and whatever Congress approves for the budget for the IATTC, the other nations pay accordingly. They do not really question the amount.

So it goes through the commission first, then for the U.S. portion, approval in Congress. Then based on that, we bill the other countries.

I am instructed though, Mr. Chairman, when I prepare a budget to assess the economic situation in the member governments and try to get some guidance from those governments with respect to what they may be able to approve.

Senator **Wilson**. Thank you very much, Dr. Joseph.

Senator **Kerry**. Thank you very, very much. We really appreciate it.

[The following information was subsequently received for the record:]

MEMBER COUNTRIES – PAISES MIEMBROS

UNITED STATES OF AMERICA — ESTADOS UNIDOS DE AMERICA
PANAMA — PANAMA
JAPAN — JAPON
FRANCE — FRANCIA
NICARAGUA — NICARAGUA

INTER–AMERICAN TROPICAL TUNA COMMISSION
COMISION INTERAMERICANA DEL ATUN TROPICAL

Established in 1950 by treaty between the United States of America and the Republic of Costa Rica for the investigation and conservation of the tuna resources of the eastern Pacific Ocean.

Establecida en 1950 por medio de un tratado entre los Estados Unidos de América y la República de Costa Rica para la investigación y conservación de los recursos del atún en el Océano Pacífico oriental.

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27 April, 1988
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Senator Ernest Hollings
Chairman
Committee on Commerce, Science, and Transportation
Senate Russel Office Building
Constitution Avenue
Washington, DC 20510

Dear Senator Hollings:

I am not really sure of the protocol governing the writing of letters to committee members, but there are several important points I had no opportunity to comment on during the hearings and which I would like to bring to your attention. Two of these concern the the testimony of Messrs. LaBudde and Phillips.

First, I would like to comment on the film. There was a great deal of questioning from the Committee as to whether the vessel was typical of the international fishing fleet in the eastern Pacific, to which the answer is a resounding and unequivocal 'no'. The boat in question was built in France in 1968, flew the French flag until 1979, and then fished under the Mexican flag from 1980 to 1983, after which it was laid up in port until 1987. Late in that year it was reactivated as a Panamanian flag vessel, and the film shown was shot on its most recent trip after being reactivated. Apparently the Captain was recruited from the Basque Provinces of Spain, and had never before been master of a tuna vessel in the eastern Pacific. After five months at sea the vessel landed only about 150 tons of tuna, a dismal result by any standards. A typical vessel in the fleet would be halfway through its third trip in that time, and would have landed more than three thousand tons of fish. The fishing gear was broken down much of the time, and the vessel finally had to be towed to port.

During the voyage the vessel made four attempted sets on dolphin-associated tuna. The set shown in the film, during which large numbers of dolphins were killed, was made on Costa Rican spinners. Any competent tuna captain knows not to set on this stock of dolphins, as tuna do no associate with them. The captain's action was criminal, and is so atypical of normal practice in the fishery that it would be ludicrous had it not led to such tragic results. The fact that there was such a high turnover of crew - "about forty" according to Mr. LaBudde - is further evidence of the lack of professionalism and competence aboard the ship. Obviously we cannot tolerate events such as were depicted in the film, but please do not be swayed by your emotions, nor hoodwinked into believing that the vessel, the crew, or the set shown in the film were in any way representative of the fishery.

My second point concerns the implication made by these two gentlemen that the data on mortality obtained through the international observer program have been falsified. These are extremely serious accusations, and cause me grave concern: they impugn the integrity of all those involved in the program, and of many of the people involved in the tuna fishery and industry. I hope that "both Mexican and US observers who can attest to the falsification of data" will be asked to testify before your committee, as suggested by Senator Breaux: if and when they do, I trust that I will also be invited to testify on the reliability of our data on dolphin mortality. I have every faith in the people who work in this program, and in the accuracy of the figures they produce: I challenge anyone to substantiate these allegations that we manipulate the data to produce lower estimates.

I apologize for sounding so emotional on this last point, but I am a scientist by training, have devoted the last several years to establishing an international program to estimate dolphin mortality, and have little tolerance for those who abuse and misrepresent the facts in order to achieve their goals, no matter how lofty and worthwhile these goals may be.

As for my third point: a good part of the hearing was devoted to the improvements and achievements of the U.S. fleet, but it should be stressed that the governments and industries of other countries have also made significant progress in the right direction. For example, in 1984 the governments of Ecuador and Venezuela agreed to step up the observer program, to match the expansion of the fleets operating from their ports. The local industries agreed to take our observers, and offered to carry the cost of their bed and board at sea. These agreements covered vessels flying the flags of Costa Rica, the Cayman Islands, Ecuador, Spain, Vanuatu, and Venezuela which operated from Venezuelan and Ecuadorian ports.

The IATTC opened offices in Venezuela and Ecuador, and conducted courses to train observers for this program. As the data started to come in, we learnt a great deal about the way these fleets operate, and were able to pinpoint their strengths and weaknesses with respect to dolphin mortality and the means of avoiding it. These new fleets employed new skippers and crews, and their lack of experience was reflected in their performance; in order to improve this situation, we held numerous meetings with skippers who were experiencing high dolphin mortality, and conducted training workshops, which were very well attended. Our program emphasizes the specific changes in fishing gear and techniques which have been proven effective in reducing dolphin mortality, and aims to expand their use: as part of this we carried out net alignments, and installed floodlights on numerous vessels. Our relations with governments and industry have been cordial, and the program continued to expand through 1985.

In 1986, Mexico voluntarily joined the IATTC international observer program, as the first phase of a program designed to estimate the impact of their fleet on dolphin populations and to reduce their mortality. The program also seeks to identify specific problems in the fishery, and to implement measures and adopt methods which will help overcome them. Many regulations on dolphins were included in a major Fisheries Act passed in 1987, and the observer program is to be stepped up in 1988. Observer coverage has oscillated between 42% and 48% since January, well above the IATTC's target of 33%, and considerably higher than the levels of 1986-1987.

The last few years have witnessed a growing awareness of the problem of dolphin mortality on the part of all nations involved in the fishery, coupled with a realization of the need for all possible efforts to reduce it. Progress may not be as rapid as one might like it to be, but it has been moving steadily in the right direction.

All the information currently available on the international fleet has been obtained thanks to the cooperation of all the nations involved in the fishery - the same nations who now see themselves threatened with an embargo. Which brings me back to the the point I tried to make during my testimony, which is that the U.S. is right to take the lead in setting standards for reduced dolphin mortality, and to require that foreign fleets reduce their kill to comparable levels, but should not risk driving those fleets away from the international observer program, and losing the very real gains already achieved. If we demand the impossible from the foreign fleets, they will simply seek new markets for their tuna and drop out of the program; there will then be no means of monitoring what is happening to the dolphin stocks, nor a mechanism for disseminating information and technology, and dolphin mortality will probably increase. The interim Regulations Governing the Importation of Tuna Taken in Association with Marine Mammals allow the foreign fleets until 1991 to reduce their kill rates to levels comparable to those of the U.S. fleet, but they also contain several requirements and provisions that are effective immediately. These include an observer program and national regulations for dolphin protection, and, most significantly, a requirement that any nation exporting yellowfin from the eastern Pacific to the U.S. be able to demonstrate a constant reduction in its fleet's dolphin mortality rate, coupled with a provision for the U.S. to act in those cases where no such progress is being made. This effectively forces the countries to a sustained improvement in mortality rates, starting now; and, if they fail to achieve a suitable improvement, then sanctions can be applied immediately. I believe this approach is correct: it emphasizes the need for steady improvement, rather than demand abrupt and unrealistic changes whose result might well confound the original intention.

I trust that I have made my points, Mr. Senator, and hope that the proposed Regulations will be approved as now written.

With highest regards, I remain,

Sincerely,

James Joseph

James Joseph

Senator KERRY. If I could ask the members of the next panel to come, and I thank Senator Wilson for keeping this process moving.

Mr. LaBudde, it is my understanding that you are going to not only show a film, but you are going to do a commentary during it, is that correct?

STATEMENT OF SAM LA BUDDE, EARTH ISLAND INSTITUTE, ACCOMPANIED BY DAVE PHILLIPS, CO-DIRECTOR, EARTH ISLAND INSTITUTE

Mr. LABUDDE. Yes. I am going to do a narration.

Senator KERRY. All right. I think what I am going to do then is ask you to proceed first, and then we will go to Mr. Bean and Ms. Scheele.

So if you could proceed.

Do you need to darken at all in here to show this, or do we proceed just the way it is?

Mr. LABUDDE. We might want to do that. I have a brief introduction I would like to read.

Senator KERRY. Fine. Go right ahead.

Mr. LABUDDE. I am here today with Dave Phillips, who is Co-Director of Earth Island Institute, and I am here to speak as a biologist on the exploitation of dolphin by the international tuna fleet.

As a way to familiarize you with the atrocities inherent in purse seining in the eastern tropical Pacific, I will narrate a brief segment of the video I shot while working aboard a Panamanian tuna seiner. I worked under two captains and fished with some 40 different crew members from eight different countries.

From my conversations with personnel as well as with U.S. national marine fisheries and Mexican Tuna Commission observers, I know that the events that I filmed are tragically representative of those ships actively engaged in the intentional pursuit and capture of dolphins as a means to catch tuna.

The things you will see on this film happen every day. Disaster sets occur on U.S. and foreign boats. The incredible harassment of repeated chase and capture happens on U.S. and foreign boats. These are the ways in which dolphins die in tuna nets. As long as the act of setting nets around dolphins is continued, this will be the result. It does not matter whose flag is flying from the masthead. The suggestion that the U.S. is less guilty because they kill at a lower rate in no way justifies the use of the procedure in the first place.

I realize from listening to prior testimony that there are some fundamental differences in our perspectives as well as our interpretation of the facts relating to this issue. But there is nothing remotely incidental about this killing. When every dolphin in the eastern tropical Pacific Ocean is intentionally hunted down and caught on an average of four times a year, the consequences of this commercial roulette are clearly inevitable.

This high tech campaign, aside from fostering and cultivating an inhumane and criminal indifference toward the fate of dolphins, has had disastrous consequences for their populations. Our boat had no helicopter, but most do. Aided by the use of speedboats and helicopters to assist in the capture of dolphins, it is not difficult to understand why these boats have been responsible for the deaths of some six to ten million dolphins since this fishery began. The populations of some species have been reduced by as much as 80 percent.

This film was taken during a four month period from October 1987 to January 1988. I chose a foreign boat because of the impossibility of taking pictures on board a U.S. tuna boat. There are only about 100 boats worldwide fishing in this manner, all of which operate in the eastern tropical Pacific. Please note that the tuna these boats catch in association with dolphin represents a very small percentage of the annual worldwide catch of tuna.

You can begin.

At the point where this begins, the encirclement has been completed.

Senator KERRY. Can you hang on one second?

Just wait until we get the technology caught up here.

All right.

[Pause.]

Mr. LABUDDE. At the point where this begins, the encirclement has been completed. The containment has been engineered by deploying the speedboats in a broad semi-circular arc around the fleeing animals. In order to disorient and stall the animals, the speedboat drivers create as much noise and confusion as possible by steering their boats in furious circles, throwing bombs in the water, and often driving right into groups of terrified animals. This is what is termed as a disaster set.

Because of the large number of animals captured in the set, the backdown procedure did not work. It turned into a riot of carnage that is difficult to describe. During the backdown sequence, the crew has a respite from the job of restacking the nets. On my boat, this break afforded them the opportunity to stand at the rail, talking and smoking cigarettes, while dolphin were drowning all around them. Some of them felt this was unfortunate, but for all of them it was business as usual.

In this set, the backdown channel has collapsed, the dolphins are forced under the net where they tried desperately to reach the surface for air. Anyone who has ever been unable to breathe for only a moment can empathize with the physical panic and hysteria that accompanies this sensation. Driven sideways by the sheer press of bodies, the dolphin are forced out into and under the walls of the net.

The dolphins are unable to swim backwards, and because they cannot breathe through their mouths, must expose enough of their bodies to breathe through their blowholes.

In this scene, a crewman is throwing more explosives in the water in an attempt to scare the dolphins to the far end of the net. Cetacean biologists that I have talked with were horrified that the use of explosives was routine practice, and have indicated that this could literally shatter eardrums, and at a minimum, certainly deafens the animals for hours, if not days.

Here, those same animals completely terrorized, deafened and disoriented by the effect of this bombing on their extremely sensitive hearing and sonar, have fled in panic toward the ship where they became entangled in the net. Amid their shrieks and cries you saw the misguided efforts of a crewman as he pulled a newborn dolphin from the net, separating it from its mother, and throwing it to certain death.

After this feeble effort to save a single baby dolphin, all efforts to release the rest of the animals were abandoned, and hauling on the net was resumed. In all the dolphin sets we made, minimal efforts by the crew could have saved many animals, but they just did not care.

Contrary to the claims of the tuna industry and Tuna Commission experts that no animals are ever brought on board or run through the power blocks, these graphic scenes tell the true story. The primary and overriding concern is to restack the net as quickly as possible so that over sets can be made.

Drowned or snagged in the nets, the dolphins fight a losing battle for life. Many of the animals caught in the net are hoisted out of the water. Some will fall back into the sea as flippers and beaks are broken or ripped right out of their bodies, only to become ensnared moments later and be pulled out once again.

Those animals still in the net are now fated to slow and sometimes excruciating deaths. They are at the absolute mercy of the crew.

But I saw no mercy. What I saw was apathy and indifference and appalling disregard for those same animals so often reknowned for the care and assistance they have offered to humans lost at sea, those same animals the scientific and lay community view as highly evolved social creatures.

So many animals which could have been saved died painful and unnecessary deaths. But this is business, and for the fishermen, time is money.

If animals exhibit signs of life, U.S. and foreign observers would not necessarily count them as mortalities, even though there is no question that all or most of injured animals die from wounds, trauma, shock, fatigue, shark attacks, and separation from their herdmates.

Does it really need to be asked as to whether this is a sane and rational way to catch tuna?

I find it hard to believe that anyone could suggest, let alone argue, that in a society like our own, that this type of madness is an economic imperative.

As for the dolphins, the lucky ones are already dead at this time. Others are so entangled that they travel aloft and are dragged through the crushing mouth of the power block. The animal that you are going to see here in a moment is the same one that you just saw pass through the power block. You see it here in its death throes, its final moments a bloody spasm of pain impossible to describe.

Again, I find it hard to believe that this type of harassment and cruelty to dolphins is allowed in this day and age. Are the laws to protect marine mammals meaningless? Does the scientific work on dolphin intelligence and social structure suggest that this is a reasonable way to treat marine mammals?

I found the treatment of these creatures, animals we dream of befriending and hope to one day understand, nothing short of sadistic. Our scientists, researchers and veterinarians go to enormous efforts to save stranded and beached animals, nurturing them back to health and investing enormous amounts of time and human energy in returning them to the wild. Yet, we participate and perpetuate this relentless cycle of extermination 16 years after passage of the Marine Mammal Protection Act.

If a true concern existed within the industry for the fate of dolphins, it would be evidenced by their own efforts in taking the initiative to halt this brutal killing and take responsibility for these senseless and inhumane killings. Instead, they fervently maintain that a U.S. kill of more than 20,000 dolphins a year is not only acceptable but reasonable.

If, armed with the knowledge that this slaughter is going on, we fail to act as responsible citizens and allow this carnage to continue, the only interpretation of our inaction will be that as humans we have made a conscious decision to ignore our own humanity by making a mockery of those very qualities we claim to hold in such esteem, compassion and sensitivity, the very qualities that are supposed to elevate and separate us from the other creatures of this planet.

When the net retrieval is almost finished, the remaining floats are draped between the two boats, forming a very deep bag with a narrow opening. Inside are the bodies of some 200 dead dolphins. Crew members climb down to remove the bodies from the net, and the lifeless creatures are cast adrift in the waves, beautiful and intelligent creatures reduced to floating compost and shark bait.

In this set it was all for 10 or 12 tuna, for there is never any way to guarantee the quantity of tuna that will be caught. Even so, to reason that a harvest of 20 tons of tuna somehow excuses these deaths is not a legitimate contention.

The crew laugh and joke as they stand on the corpses, exulting in their handiwork and brandishing newborn babies over their heads like trophies, even tossing the tiny creatures back and forth like footballs.

For all tuna fishermen, this pain and these killings, if not the dramatics that I witnessed, are accepted parts of their jobs, and many of them argue that this inhumane slaughter is an indispensable necessity.

The animals in this set were Costa Rican spinner dolphins, a protected species estimated to number only 9000 in 1979. When one takes into account the unobserved mortality caused by drowning, trauma, injury, fatigue, increased susceptibility to predation and a general disruption of their highly evolved social structure, it is not unrealistic to assume that many other animals may have died. It is entirely possible this one boat could have killed 5 percent of the entire world population of this species in a single afternoon.

The last sequence shows a school of about 50 common dolphins that were caught in another set. Because of the concern that a backdown would only waste time and in the interest of completing the operation and beginning another set before nightfall, a decision was made that there were not sufficient numbers of dolphin in the net to merit any rescue attempt whatsoever. The captain simply asked the lookout how many dolphins were in the net. When the reply came back that there were only 50, he ordered the crew to begin hauling the net.

This school of animals was completely wiped out. There was no backdown, there was not the slightest attempt or assistance offered to release any of the animals alive. Every one of them was killed.

Though no one knows the reasons for tuna-dolphin association, it has not prevented fishermen from exploiting this relationship and in the process exacting a tragic toll on the dolphins. Dolphins represent one of the most sentient species on the planet, a point which many would argue entitles them to full protection. But as you can see from this film, there is little reverence or concern for their fate, either as individuals or as communities.

If this were happening close to shore where people could see it and experience for themselves, I know it would be stopped immediately. If it were happening to dogs, cats or horses, it would be banned instantly because of the waste and cruelty, let alone the destruction and endangerment of a sentient mammalian species we are just beginning to learn about.

I knew absolutely nothing about this issue eight months ago. When I did learn that the U.S. government was allowing this slaughter, I was incredulous that as a nation we could play a leading role and an admirable role in working for a ban on all commercial whaling while sanctioning this activity in the nets of U.S. flagships. I thought that the Marine Mammal Protection Act meant just that. I cannot believe that this is what the American people and Congress had in mind.

That is the reason I did what I did, so that people could see what is happening.

I do not believe we can accept the arguments that a very few individuals have the God given and economic right to wage high tech war on dolphins. The responsibility for ending this brutality rests both with Congress to renew and enforce stronger provisions, and with the tuna industry, to find alternatives which do not involve the continued encirclement and harassment of dolphins.

I feel that the fate of the dolphins and our own direction as a species stand as very real questions here today. But will we respond accordingly? This issue has begun to generate an outpouring of support, but what of the future? Is this to be another tragedy of the commons as we continue to reassert our domination over the natural world? Or is this issue to be shuffled aside after a brief reemergence? Can we take responsibility for our own social evolution and our definition of humanity?

You have the power to change the situation. You have the power to stop this slaughter. I believe that present and future generations will applaud your efforts to bring the kill down to zero and eliminate this problem once and for all.

Thank you for letting me share the video with you, as well as my concerns.

Senator KERRY. Thank you very much, Mr. LaBudde.

That is a very graphic and I think important film, and I appreciate enormously your bringing it to us.

Needless to say, we have some questions and I am sure some comments. I would like to come back to you. I would like to proceed, if we can, through the rest of the panel first.

Let me ask Ms. Scheele, would you go next, and then Mr. Bean?

STATEMENT OF LESLEY SCHEELE, COORDINATOR, INTERNATIONAL SMALL CETACEAN CAMPAIGN, GREENPEACE INTERNATIONAL

Ms. SCHEELE. Certainly, Mr. Chairman.

Mr. Chairman and Members of the committee, I am Lesley Scheele. I am the Small Cetacean Project Coordinator for Greenpeace International. In addition to the organizations listed in our written testimony, I would like to add for the record the following groups which have joined us. These groups are the American Cetacean Society, the American Humane Association, Center for Environmental Education, the California Marine Mammal Center, Committee for Humane Legislation, Earth Island Institute, International Wildlife Coalition, the Marine Mammal Fund, the National Audubon Society, Northwind Undersea Institute, and the Whale Center.

We appreciate the opportunity to address an issue of major concern to the United States, that of the dolphins killed by tuna fishing operations. It is an issue that has been closely linked with the Marine Mammal Protection Act. In fact, public outrage over the numbers of dolphins killed was in large part responsible for the Act's passage. Since the original goal to reduce these kills to numbers of insignificant levels, approaching zero, this goal has been seriously eroded and weakened throughout the years.

I am testifying today because we are concerned that dolphin mortality continues at levels of a decade ago. Sixteen years after the passage of the act, roughly 100,000 dolphins are still being killed due to tuna fishing operations. Many of the problems that were recognized by Congress then remain problems today.

We have not kept faith with the American people, and we have misled them into believing that this problem has been solved.

The problem is far from solved. Of major concern is our inability to effectively reduce mortality for both the U.S. and the foreign fleets and the status of the dolphin stocks. Can they continue to withstand this level of take day in and day out?

While serious reductions in kills did indeed occur from the time the act was first implemented in 1974, we really have seen no further reductions since 1977 by the U.S. fleet. Indeed, since 1981, the fleet has operated under a permanent quota of 20,500. At that time the U.S. fleet consisted of 93 vessels and was able to stay within that quota of 20,500. In 1986 the fleet comprised 34 vessels and exceeded that quota nine and a half months into the year.

Rather than seek alternatives to the active chase, hunting and encirclement of dolphins, we have seen industry intensify its efforts on dolphins. In 1981 nearly half of all the sets made in the eastern tropical Pacific involved the taking of dolphin. Today, virtually every set involves the intentional chase and capture of dolphins.

U.S. performance as measured by a variety of kills rates has also worsened. However, rates, whether they be kill per ton, kill per set, or even numbers of dolphins released per set, do not reflect the actual numbers of dolphins that are taken annually and do not give you an idea of the impact that these levels are having on the respective stocks.

When the quota was first established in 1981, it was assumed that the foreign kill levels were and would remain at levels of the U.S. Further, it was determined that stocks could withstand a level of take of 41,000 animals per year. In 1986, Dr. Joseph testified that 129,000 were killed in 1986 alone. That is three times the level that was considered safe in 1981.

We believe that recent work indicates the dolphin stocks of the ETP are in serious trouble. Two stocks, the eastern spinner dolphin and the coastal spotted dolphin, have already been declared depleted under the Marine Mammal Protection Act. The eastern spinner is thought to have been reduced by as much as 80 percent due to tuna fishing operations.

The status of the major target stock, the offshore northern spotted dolphin, was reported in 1983 to have been reduced to over 50 percent of its original population. This is below its lower boundary of optimum sustainable population.

Other research indicates that a fourth stock, the southern offshore spotted, may have been reduced as much as 80 percent in the last decade.

Since the establishment of the permanent quota, declines have been observed in virtually all of the major target stocks.

There appears to be little relief in sight. The foreign fleet has been severely fueled by U.S. flag transfers and new vessel construction. They are as anxious to capitalize on this associative bond as the U.S. Regulations to control the foreign mortality, while four years in the making, are now completely inadequate. Even if comparability, as defined by the National Marine Fisheries Service, was achieved, we in essence would be codifying a kill of 80,000 dolphins a year.

Industry has had 30 years to solve this problem. The National Marine Fisheries Service has had 16. It is apparent that no further improvement should be expected unless a major change in direction is taken. Unacceptably high numbers of dolphins will continue to be killed.

The Congress has stated that commercial fishing operations must reduce kill levels of marine mammals to levels approaching zero mortality rate. It is our opinion that the intentional take of massive numbers of dolphins, some of them formally declared depleted, by the tuna fishery is inconsistent with this goal. We believe, therefore, that there is ample justification today for the quota to be reduced to zero immediately.

However, in order to give the fleet, the processors and the National Marine Fisheries Service the opportunity to find alternatives, we would consider as a minimum requirement a reduction in the mortality to zero over a four year period.

Thank you very much, Mr. Chairman.

[The statement follows:]

STATEMENT OF LESLEY SCHEELE, GREENPEACE

Mr. Chairman and members of the committee, I am Lesley Scheele, the Small Cetacean Coordinator for Greenpeace International. This testimony is presented on behalf of Greenpeace U.S.A. and the following groups: Animal Protection Institute of America, Defenders of Wildlife, Friends of the Earth, The Humane Society of the United States, Oceanic Society, Society for Animal Protective Legislation.

I appreciate the opportunity to address an issue which is of major concern to the United States—that of dolphin mortalities in the tuna fisheries in the Eastern Tropical Pacific (ETP). It is an issue which has been intimately tied with the history of the Marine Mammal Protection Act. In fact, a major impetus for the original passage of the Act was the public outrage over the huge number of dolphins being killed by tuna fisheries. Since the original passage of the Act, the original goal of reducing ". . . incidental kill or incidental serious injury of marine mammals . . . to insignificant levels approaching a zero mortality and serious injury rate" [16 U.S.C. 1371 (a)(2)] has often been compromised and seriously eroded. Accompanying this testimony is a paper tracing the development of this issue over the years.

I am testifying today because we are concerned that dolphin mortalities continue unabated at levels which were present a decade ago, and the problems which Congress recognized then have not been resolved. Sixteen years after the passage of the Act, roughly 100,000 dolphins are killed annually. We have not kept faith with the American public and have misled them into the belief that the problem has been solved. The groups presenting this testimony believe that current dolphin mortalities are unacceptably high.

I will address the domestic side of the equation and for the most part will use 1981 as a base year. That was the year that the dolphin mortality quota for the U.S. fleet became permanently fixed at 20,500. Since the quota was set, not only has there been no improvement in performance by the U.S. fleet, but by several measurements performance has worsened. In 1986, the U.S. tuna fleet exceeded that quota and had to be prevented from setting on dolphins for a period of 2½ months.

Before arriving at the quota of 20,500, assumptions were made which have not been borne out. Most seriously, the fleet characteristics were such that it was assumed that the mortality level of the foreign fleets was equivalent to that of the domestic fleet and that the dolphins could sustain a level of 41,000 deaths. Further evidence has surfaced that assumptions on the biology of the animals were inaccurate. As environmentalists, we are deeply distressed by evidence that specific dolphin populations are in serious trouble. We would also like to point that when the 20,500 quota was put into place, the Congress indicated that such a level was not acceptable. At that time, instructions were place into the law that work be conducted on gear modifications and alternative methods which do not involve dolphin encirclement. Certainly if the Congress had been satisfied with quota levels, such a provision would not have been written into the law.

During the last reauthorization, environmentalists negotiated for two provisions. Concerned about the number of dolphins being killed by the foreign fleets, a provision was written into the Act requiring that regulations be issued that their kill rates be comparable to those of the U.S. fleet. Michael Bean of the Environmental Defense Fund is testifying today on the lack of progress in this area. Second, the environmentalists were concerned about the status of stocks and asked that a study of trends in abundance be conducted. The National Marine Fisheries Service did not initiate the study until late 1986. Quite frankly, from our perspective assuarnces made during the last reauthorization were never carried out, and the situation has continued to deteriorate. The concerns expressed then have become serious problems.

The absence of will on the part of NMFS to administer the Act in this area has been evident for some time. Rather than viewing the Act as a marine mammal protection measure, NMFS has acted as if its primary purpose is the protection of the industry and as if the MMPA is an inconvenience to be gotten around. They have failed to observe their statutory mandate, ignored their own evidence, and stalled when they were given explicit instructions.

After sixteen years, the time has come to return to the original purpose of the Act. No progress has been made for over a decade. The kill levels are still at about 100,000 per year. We have been unsuccessful in achieving the goal of the Act through fine tuning and regulation. The time has come to mandate a reduction to zero mortality.

HISTORY

The practice of intentionally encircling dolphins to catch tuna has occurred for some 30 years now and has resulted in the deaths of an estimated 6 million dolphins (Table 1). Exposed 10 years later, the ensuing public outrage was a major impetus leading to the passage of the MMPA in 1972. While the Act called for an immediate moratorium on the taking of marine mammals, ironically a two year exemption was granted to the very industry which helped inspire the Act. The tuna industry had successfully convinced Congress that they had the problem solved. A two year grace period would "give the tuna fisheries association an opportunity to develop what they indicate is certainly a solution." However, during the two year grace period alone, another 350,000 dolphins were killed. NMFS issued a permit to the American Tunaboat Association (ATA) which allowed an unlimited take of dolphins. Only as a result of lawsuits initiated by the environmental community in 1976 did NMFS assess dolphin stocks, impose annual quotas, require dolphin saving gear and techniques, and institute a mandatory observer program. As a result, mortality estimates for the U.S. fleet fell from 166,000 in 1975 to 25,000 in 1977. NMFS then imposed annually declining quotas for the next three years as mortality for approximately 100 vessels averaged 18,625 dolphins. Today's mortality estimates are at levels of a decade ago, despite a much smaller fleet. While both industry and the agency have recently been praised for reducing dolphin mortality, the carnage continues at levels of a decade ago.

Today's quota of 20,500 was first set by NMFS in 1981 and later extended indefinitely. Despite severe interagency disagreement over the status of certain dolphin stocks and in full contravention of the immediate goal of the Act to reduce these kills to levels approaching zero, NOAA in 1981 imposed a non-declining quota of 20,500 dolphins for the next 5 years. The establishment of a static quota was based on several assumptions and conditions which are no longer valid. Primary among these assumptions was that industry could remain within the quota, the total kill level (U.S. and foreign) would not exceed 41,000 and that such levels would not disadvantage the stocks.

1981 QUOTA

The quota of 20,500 was derived by multiplying a projected catch of 93,000 tons of tuna caught in association with dolphin by a kill/ton rate of .24 which was considered both achievable and technologically practical. This figure was then reduced by 8.5% to reflect a loss in fish catch due to the proposed imposition of a prohibition on evening or "sundown" sets. Interestingly, had the quota been properly adjusted to reflect the number of dolphins spared due to a sundown prohibition as opposed to lost fish catch, the quota should have been adjusted to 15,700.[1]

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[1] The prohibition on sundown sets was due to the undisputed higher mortality inflicted during these sets. These sets, which accounted for an average of 8.5% of yellowfin catch on dolphin,

Continued

It was reasonable to assume that the U.S. fleet could operate within this quota of 20,500. The average dolphin mortality for the preceding three years had been 18,625.

Further, the imposition of a static, non-declining quota had to assume that characteristics and performance of the fleet would remain relatively constant. In any event, the quota would serve as a cap to ensure the stocks would not be disadvantaged if the fleet grew and performance did not improve. However, the exact opposite has occurred, as the U.S. fleet has diminished considerably without a corresponding decline in kill levels. Even as a cap the qouta has failed as industry has twice exceeded the quota.

FLEET SIZE

The quota of 20,500 was first set in 1981 for a fleet of a particular size. Since then, the number of U.S. vessels actively setting on dolphins has diminished considerably. Numbering 93 vessels in 1981, the U.S. ETP fleet dropped to 34 vessels in 1986. Throughout the years, a substantial number of vessels have opted for flags of convenience, either to avoid U.S. dolphin regulations, or to lower operating costs. Others have remained in the Western Pacific after overfishing and the presence of the El Nino phenomenon forced an exodus from the ETP. If those vessels which have since reflagged but were part of the original calculation were to be included under the U.S. quota, the quota of 20,500 dolphins would have been consistently exceeded since 1981.

There is little justification for maintaining a quota of 20,500 when the fleet has been reduced by 65%. The static quota means that even if the fleet were reduced to a single vessel, that vessel could kill 20,500 dolphins.

PERFORMANCE

A fleet which has been reduced by 65% yet continues to kill the same level of dolphins as before suggests that fleet performance has deteriorated. A variety of kill rates have been utilized to assess fleet performance. Interestingly, the only measure of performance which has improved since 1981 is the kill rate most often used by NMFS—that of dolphins killed per ton of yellowfin caught. In 1981, the rate was .32 dolphins per ton of tuna. In 1986, it was .27. It is important to note, however, that during the same time period, the denominator (tons of yellowfin caught per dolphin set) has jumped from 11 to 25 tons per set. (Table 2). The kill per ton rate is merely a measurement of fishing efficiency and has little to do with the number of dolphins actually killed. Indeed, when one factors out the greater tonnage per set, kill per ton has increased.

By all other measures, performance has declined substantially. From 1981 to 1986, the annual kill per vessel fishing has tripled from 199 to 608. Similarly, there has been a marked increase in the number of dolphins killed per ton of vessel capacity. When the effort of those vessels is considered through annual kill per fleet day, performance has worsened by a factor of 4. (Table 3).

A more standard measure of performance is the number of dolphins killed per set. This ratio has likewise worsened from 3.6 in 1981 to 6.87 in 1986. Further compounding this kill rate is industry's increased dependence on dolphin sets. In 1981, 47% of all sets made in the ETP were on dolphin. By 1985, that dependence had soared to 94%, where it remains today. A static quota has enabled the industry to actually increase its effort on dolphins.

It is important to note that kill rates, whether they reflect kill per vessel or kill per ton only serve to measure or indicate the fleet's effort and fishing efficiency. Kill per ton may actually decrease substantially, while the total number of dolphins killed increases. Most important to the dolphins is the level at which they are killed and its impact on the respective stocks—not at what rate they are killed. Since the quota of 20,500 was first set in 1981, it has been exceeded twice. In 1986, the level of dolphins killed by the U.S. fleet rivaled levels reported in 1977.

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resulted in over 30% of the total mortality. Kill rates during these sets were thus 3-4 times higher than day sets. If the quota were to truly reflect the effect a ban on sundown sets would have on dolphin mortality, the quota should have been reduced to reflect dolphin mortality not fish mortality. Thus even the computation of the quota erred. The prohibition was suspended 8 days after it went into effect in 1981 and deleted in 1986.

ALTERNATIVES AND TECHNOLOGY

Congress passed an amendment in 1981 which directed the Secretary to "undertake a program of, and . . . provide assistance for, the research into new methods of locating and catching tuna without the incidental taking of marine mammals." (Sec. 110(a)). This action clearly suggests that Congress was neither satisfied with the 20,500 quota nor the continued practice of exploiting dolphins in order to catch tuna. Despite a clear mandate, the ensuing years have been devoid of research and development on alternative fishing methods which do not involve encircling dolphins. Rather, industry has been allowed to increase its financial dependence on dolphin sets to the point where virtually every set involves the take of dolphins.

Not only has the promotion of alternative fishing methods been lacking, but even requirements for improved technology designed to reduce mortality have been ignored. Indeed the only innovation in technology has been the utilization of brighter lights during sundown sets. In 1985, many of the existing regulations and gear requirements were reduced to guidelines. As examples, requirements for hand rescue techniques and such things as the placement of towlines to prevent the collapse of backdown channels became guidelines. The industry could observe these guidelines if it wished but was under no compulsion to do so.

Interestingly, backdown and the fine mesh panel, the only requirements not completely emasculated in this process, were developed and utilized by the fisherman prior to passage of the Act. The rationale for this relaxation of regulations was that it would alleviate industry from burdensome and restrictive regulations which might allow industry to improve on gear and procedures. In reality it may have sent a signal to the industry that dolphin kills were no longer of major concern. The next year 34 vessels exceed the quota 9½ months into the fishing year.

STATUS OF STOCKS

The major target species taken in the ETP tuna fishery are spotted dolphin, spinner dolphin, spinner dolphin and common dolphin. Each of these species are comprised of a number of morphologically and geographically district subspecies known as stocks. A stock which has been reduced below its optimum sustainable population (OSP), (interpreted at 60% of its orginal size) is considered "depleted" and its continued take prohibited under the Act. Currently, two stocks, the eastern spinner and coastal spotted dolphin, have been so reduced by tuna fishing operations they have been designated as depleted. The tuna industry is, however, the only commercial fishery which has an exemption to this provision.

In the event that stocks are not depleted, the Act requires that continued takes will not disadvantage the stock. "This determination is made by estimating the maximum replacement yield of each stock (Rmax) times present stock size. The replacement yield is then divided between anticipated foreign and domestic takes." (Fed Reg 1980). Inherent in the establishment of the 1981 quota and the determination that this level would not disadvantage the stocks was the assumption that "foreign caused porpoise mortality will remain unchanged or will not increase above U.S. levels during the 1981-1985 period" (FEIS 1980). Thus a level of 41,000 was determined a safe level for the combined stocks.

We believe that several of the target stocks are in serious trouble. In 1986 alone, total mortality for the combined fleets was estimated at 130,000 dolphins, several orders of magnitude higher than the level presumed safe. It is suspected that this dramatic increase in overall fleet mortality is due to the increased foreign observer coverage, thus the ETP stocks may have experienced this level of take for some time. Formally declared depleted in 1976, the eastern spinner has been reduced 80% as a result of tuna fishing operations. In 1986, another estimated 16,000 eastern spinners were killed from a population estimated at between 200,000–600,000 (SWFC Admin. Rep. LJ 85-20, 1985). This is cause for grave concern because the reproduction and natural mortality rates of this species are unknown. It should be noted, though, that the status of this species was considered to be so poor that there is an absolute prohibition against setting on pure schools of eastern spinners, and there is a cap of 2,750 animals for the U.S. fleet.

Much dispute has surrounded the status of the primary target stock, the northern offshore spotted dolphin. In 1979, NMFS reported that this stock was below OSP at 34–55% of its pre-exploited population, however NOAA later ruled that this stock was at 63% just enough to place it within the boundaries of OSP. A court directive resulting from an industry initiated lawsuit (ATA v. Baldrige) led to a virtual doubling in all target stock sizes. These are the figures utilized today by the agency, despite additional later findings by others which warrant concern. The IATTC has reported a further decline in this stock since the controversial rulemaking in 1979.

NORTHERN OFFSHORE SPOTTED

[In millions]

	Original population	1979 population	1979 status (precent)	1986 population
NMFS 1979	5–7	2.33–2.67	34–55	
NOAA 1980	5	3.15	63	
NMFS/Court	7.19	6.12	85	
Smith 1983	4.8–5.6	1.68–2.78	35–50	
IATTC 1986	NA	3.59	NA	3.34

Such data clearly indicate that even in the case of the major target stock a high degree of uncertainty continues to exist over the status of dolphin populations exploited by the tuna industry.

An estimated 67,000 offshore spotted dolphins with a replacement yield of only 83,000 (FEIS 1980) were killed in 1986 alone. Recent studies show declines in several of the stocks over the last decade. The most dramatic decline observed, the southern offshore spotted dolphin stock may have been reduced by 80 percent in the last ten years (IATTC 1986).

Even at face value, the mortality figures and subsequent impact these levels may have on the stocks are alarming. We believe, however, that mortality estimates issued by NMFS and the IATTC are but a fraction of the actual lethal take. No provisions are made for "observer effect", i.e., vessels without observers are considered in the calculations to operate in the same manner as vessels carrying a federal enforcement agent or an IATTC technician. Vessels with observers are subject to citation for violations of regulations. Further, data from observed vessels is extrapolated into the unobserved fleet, creating an incentive to reduce observed kills. Crooms (1980) reported that dolphin mortality was significantly higher on vessels not carrying observers than on vessels where observers were present.

In addition, no provisions are made in mortality estimates for cryptic kills, i.e., animals released from the net which may later die from shock, stress or unseen injuries. Over 2 million animals are taken each year by the U.S. fleet alone. Some animals may be taken several times in a day. Even if only a small percentage of animals later succumb, the number would be significant.

NMFS, with its dual responsibility to maintain a lucrative fishery while simultaneously protecting dolphins, has shown a consistent bias in favor of industry. Indeed, as viewed by the agency "The National Marine Fisheries Service (NMFS) is committed to achieving effective protection of porpoise with the least disruption of the specific operations of tuna operations" (Letter from C. Fullerton to L. Scheele 2/6/1986). It should be noted that this statement was made immediately after regulations to protect dolphins had been reduced to guidelines.

Despite recent population estimates to the contrary, NMFS continues to utilize the highly optimistic figures which resulted from the court directive. Although reported kill levels are far in excess of what the agency deemed safe in 1981, no reevaluation has been done on the stocks. NMFS continues to utilize a maximum net recruitment rate of 4 percent, a highly optimistic figure for severely reduced cetacean stocks, and the subject of much debate within the International Whaling Commission.

MONITORING PROGRAM

In 1984 the general permit issued to the ATA and the quota of 20,500 were extended indefinitely. In large part this was due to the controversy which continued to surround the status of stocks and attempts by all parties involved to avoid lengthy and costly rulemaking procedures. Congress, the environmental community and the public, however, had been assured that a five year monitoring program would detect problems. If the continued taking was to the disadvantage of the stocks, quotas or regulations would be adjusted accordingly. But rather than basing the survey on original population levels, it was based on detected declines that occurred after the start of the survey. It is now apparent that the five year monitoring program cannot ensure timely detection of continued declines. Holt (1987) reports that the monitoring program "will only allow us to detect a 13 percent annual decline in spotted dolphin abundance. This means that the population could decline by 50 percent during the survey period before it could be detected." Results from the first year of the survey are even more bleak than anticipated. NMFS reports that even larger reductions in populations will have to occur before they can detect a change with any confidence. This may be due to the low number of dolphins encountered during the survey.

Congress intended the Act to be administered for the benefit of marine mammals rather than the benefit of commercial exploitation. The legislative record states, "Before issuing any permit for the taking of a marine mammal, the Secretary must first have proven that any taking is consistent with the purposes and policies of the Act—that is to say, that any taking will not be to the disadvantage of the animals concerned. If he cannot make that finding he cannot issue a permit. It is that simple." (Congressman John Dingell, Congressional Record, Dec. 6, 1971, p. HR 10402). The debate and uncertainty which surrounds the status of stocks is cause enough to dictate that we err on the side of caution when making assessments of the impact of the tuna industry. With levels of take far in excess of those deemed safe in 1981, and with the inability of the monitoring program to detect further reductions in a timely manner, the present system cannot ensure the viability of the stocks.

CONCLUSION

It has been thirty years since the practice of setting on dolphins in the eastern tropical Pacific became established. It has been 16 years since the Marine Mammal Protection Act was first passed. Tuna fishermen have had ample opportunity to improve their practices, but over the last decade little has been done to seriously affect regulations in dolphin mortalities. The number of dolphins being killed in this fishery remains a serious problem, but both the tuna industry and NMFS have demonstrated an inability or unwillingness to address it.

Much has been said about rates, but as long as dolphin deaths remain a function of fishing effort, we will never be able to guarantee that the combined fleets will not seriously deplete dolphin stocks. The bottom line remains the number of dolphins actually killed and the impact of the fishery on specific stocks. By this measure, conditions have not improved for over a decade.

As groups concerned about the impact of this fishery on dolphin stocks, we feel that the time has come to return to the original goal of the Act and mandate a zero mortality level. We would point out that this carnage is not an "incidental" take—it is an intentional take. Unlike other fisheries with marine mammal kills, these dolphins are not passively taken when they encounter fishing gear. Rather, it involves a take which is deliberate under the definition of "take" in the Act. It is a purposeful hunting, harassment, capture and, in some cases, killing of marine mammals.

It has become apparent that no improvements should be expected, and unless a major change of direction is taken unacceptably high numbers of dolphins will continue to be killed. The Congress has stated that the immediate goal of the Act is that commercial fishing operations reduce kill levels of marine mammals to levels approaching a zero mortality rate. It is our opinion that the intentional take of massive numbers of dolphins in the tuna fishery is inconsistent with such a goal. Sixteen years after the Act was passed it is time for the practice of setting on dolphins to be stopped.

In order to allow the fleet, the processors, and NMFS the opportunity to find alternatives, we would consider, as a minimum requirement, a reduction of the mortality quota to zero over a four year period. Reducing the quota in straight-line increments of 25% a year would eliminate the killing of dolphins by the purse seine tuna fleet by 1992.

There are several reasons why such an action is justified. First, performance by the U.S. fleet has deteriorated since a static quota of 20,500 was set in 1981. Second, there is evidence that specific stocks of dolphins are in serious trouble. Combined with the difficulty to detect changes of less than disastrous proportions in the short term, massive dolphin kills cannot be scientifically justified. Finally, it seems to be inevitable that the performance of the United States fleet will serve as the baseline for any regulation of the foreign fleet. Even if the foreign fleet were to perform at levels equal to those of the U.S. fleet, the change in the composition of the fleet since 1981 would mean that approved kill levels could be beyond the biological capacity of the stocks and beyond the acceptance level of the American public.

Mr. Chairman, I would hope that in four years it will not be necessary to give a post-mortem on species of dolphins in testimony before this subcommittee. Having talked with some of the scientists who work with these species, I know that they think such a scenario is not beyond the realm of possibility. I would like to quote two sentences from an editorial comment of the May, 1987, IUCN *Newsletter of the Cetacean Specialist Groups*: "There seems to be little hope for solution of the dolphin/tuna problem . . . The situation is reminiscent of whaling before the advent of the IWC; it may become yet another 'tragedy of the commons'." This tragedy can only be prevented if we follow through on a commitment made 16 years ago and prevent the deaths of dolphins in this fishery.

TABLE 1.—ANNUAL MORTALITY FOR U.S. AND NON-U.S. FLEETS

Year	U.S. kill	U.S. quota	Foreign kill	Total
1959				55,000
1960				478,000
1961				534,000
1962				216,000
1963				240,000
1964				390,000
1965				460,000
1966				374,000
1967				257,000
1968				229,000
1969				461,000
1970				467,000
1971	246,213		15,719	261,932
1972	368,600		55,078	423,678
1973	206,697		58,276	264,973
1974	147,437		27,245	174,682
1975	166,645		27,812	194,457
1976	108,740	(78,000)	19,482	128,222
1977	25,452	(62,429)	25,901	51,353
1978	19,366	(51,945)	11,147	30,513
1979	17,938	(41,610)	6,837	24,775
1980	18,573	(31,150)	30,978	49,551
1981	18,520	(20,500)	16,516	35,036
1982	23,267	(20,500)	5,516	28,783
1983	9,589	(20,500)	[1] 17,759	[1] 27,348
1984	17,732	(20,500)	[2] 26,252	43,984
1985	19,205	(20,500)	[2] 37,505	56,710
1986	20,692	(20,500)	[2] 108,767	129,459
1987	13,992	(20,500)	NA	NA
Total				6,059,108

[1] Numbers were arrived at by subtracting U.S. estimates from IATTC total fleet estimates.

[2] Numbers are only rough approximations, arrived at from extrapolation of IATTC (1984) data for kill average 1979–1983 Annual Report and should not be used.

Note: 1959 to 1970 N. Lo and Smith, 1986; 1971 to 1979 NMFS, FEIS, Nov. 1980; 1980 to 1981 IATTC Annual Report 1982; 1982 IAATC Annual Report 1983; 1983 to 1986 for U.S. fleet Annual Report of the MMC, 1986. Total kill figures for 1984–1986, IATTC Annual Report 1984, 1985, 1986.

TABLE 2.—U.S. PERFORMANCE SINCE QUOTA OF 20,500

	Year					
	1981	1982	1983	1984	1985	1986
Number of certified vessels	93	89	60	34	36	34
Kill per ton	.32	.46	.30	.30	.25	.27
Tones of YF on dolphin	11	11	11	18	19	25
Kill per set	3.61	5.18	3.20	5.52	4.69	6.79
Percentage of dolphin sets	47	49	55	79	94	94

Source: Summary Statistics 1981–1986, Porpoise Rescue Foundation, Jan. 9, 1987.

TABLE 3.—U.S. PERFORMANCE PER VESSEL AND EFFORT

	Year					
	1981	1982	1983	1984	1985	1986
Estimated mortality	18,520	23,267	9,589	17,732	19,205	20,696
Certified vessels	93	89	60	34	36	34
Kill/vessel	199	261	159	521	533	608
Capacity	107,272	104,120	77,532	46,458	45,113	41,550
Kill/capacity	.173	.223	.124	.382	426	.498
Fleet days	19,057	17,559	10,263	6,191	6,459	4,886
Kill/fleet days	.97	1.32	.93	2.86	2.94	4.24

Source: Porpoise Rescue Foundation, Summary Statistics Jan. 9, 1987; Environmental Assesment, Nov. 1987.

Senator KERRY. Thank you very much, Ms. Scheele.

Mr. Bean, let me just remind you to summarize in a five minute period, because we are running very tight here.

STATEMENT OF MICHAEL J. BEAN, ENVIROMENTAL DEFENSE FUND

Mr. BEAN. Yes, sir, Mr. Chairman. I will be very brief.

Let me return just a moment to the film that we watched a few moments ago. The tuna caught by that vessel may lawfully be imported into the United States. If you eat tuna later today, you may be eating tuna caught in that very set that you witnessed.

It was not supposed to be that way, however. Congress in 1984 made very clear that the U.S. was no longer to import tuna caught by foreign nations that fished on porpoise, unless those foreign nations had comparable programs to protect porpoises and unless those programs resulted in porpoise mortality rates that were comparable to the rates of the U.S. fleet.

Clearly, the National Marine Fisheries Service has not implemented what Congress directed it to do in 1984. There were some, I think, rather startling answers given to questions put by you this morning, Mr. Kerry.

Mr. Douglas indicated that the reason that the National Marine Fisheries Service did not do what Congress directed it to do in 1984 was because his agency did not think it would work.

Mr. Fullerton elaborated upon that by saying—and I think the transcript will bear this out as a nearly accurate quote—that earlier proposed regulations, which would have been much more restrictive and which would have more closely carried out the will of Congress in 1984, were "not acceptable to the foreign nations."

I hope I was not the only one in the room who flinched at the thought that a U.S. Federal agency would choose not to implement the expressed will of a Congressional directive because it was not acceptable to do so to foreign nations.

The other reason that the agency has given for refusing to do what Congress directed it to do in 1984—and by the way, I think it is worth pointing out that there has not been four years of delay in carrying out that express directive; there will be seven years of delay, because what is required in the new regulations does not take effect until 1991 with respect to achieving comparable rates of porpoise mortality.

That is to say, although regulations have just been published, those regulations do not require what Congress intended to be required until 1991, seven years after those amendments.

The reason that the government has offered for its refusal to do what Congress clearly directed it to do is because the agency thinks that foreign governments will simply take their fish elsewhere and give up the U.S. market, rather than reduce their porpoise mortality rates.

I think the agency proceeds on a rather myopic view of its powers. The U.S. need not be a passive bystander were that to happen.

Clearly this Act, Section 108 of this Act, directs the Secretary of Commerce and the Secretary of State to take an active international role in negotiating international agreements to protect marine mammals.

Indeed, it is my understanding that the European Community is this very week considering a resolution that would restrict the importation of tuna caught on porpoise into the European market. And that apparently is an action that has been taken as a result of prodding by non-governmental groups.

The U.S. government, if it is aware of it, has done nothing to facilitate it. Yet it is clearly the type of action that the U.S. could cooperate in to ensure that the result the agency fears, of foreign nations simply selling their tuna elsewhere, will in fact not occur.

My basic message to you today, gentlemen, is that 1991 is clearly too long to wait for this agency to do what you directed it to do in 1984. Mr. Breaux is certainly right, when he was the chairman of the subcommittee in the House he thought and all the rest of us thought that we had solved this problem and directed the agency to do what would make it possible for us not to have to watch films like the one we watched today.

The agency has not done so, and I think your committee today should make it clear that it is not willing to wait until 1991 to have that law carried out.

[The statement follows:]

STATEMENT OF MICHAEL J. BEAN, ENVIRONMENTAL DEFENSE FUND

Congress enacted the Marine Mammal Protection Act in 1972 in response to the alarming decline of whales, porpoises, seals, and other marine mammals throughout the world. Among the more conspicuous problems to which the Act was addressed was the drowning of huge numbers of porpoises each year in the course of commercial tuna fishing. This massive mortality occurred as a result of a fishing practice known as purse seining "on porpoise." Because schools of yellowfin tuna in the eastern tropical Pacific Ocean often swim beneath schools of surface-swimming porpoise, fishermen had discovered by the late 1950's that a highly effective means of catching tuna was to encircle a school of porpoise with a long purse sein, thereby trapping both tuna and porpoise within. Unfortunately, however, fishermen were not as successful immediately in figuring out how to permit the escape of the captured porpoises. As a result, each year hundreds of thousands of these air-breathing mammals drowned or were crushed in tuna nets.

When it passed the Marine Mammal Protection Act, Congress believed that the drowning of porpoises in the course of tuna fishing could be dramatically reduced through refinements in gear and fishing techniques. Reflecting that belief, Congress embraced the goal "that the incidental kill or incidental serious injury of marine mammals permitted in the course of commercial fishing operations be reduced to insignificant levels approaching a zero mortality and serious injury rate." 16 U.S.C. 1371(a)(2). This goal was to be achieved through a system of permits, regulations governing the type of gear to be used and the manner of its use, on-board federal observers, and numerical quotas fixing the maximum number of porpoises permitted to be killed each year. Implementation of the measures to achieve this goal was not without controversy. See e.g., *Committee for Humane Legislation* v. *Richardson,* 414 F. Supp. 297 (D.D.C.), *aff'd* 540 F. 2d 1141 (D.C. Cir. 1976) and *Balelo* v. *Baldrige,* 724 F. 2d 753, 766 (9th Cir. (1984). Despite occasional controversy, however, dramatic progress was made in reducing the drowning of porpoises. By the early 1980's average annual porpoise mortality caused by American tuna fishermen had been reduced to less than 20,000, a more than 90 percent reduction in a decade. In addition to this absolute decline, the rate of mortality, typically expressed as a number of porpoises drowned per ton of yellowfin tuna caught fishing "on porpoise", fell to only about 0.25.

From the outset, Congress was aware that the porpoise problem was not solely an American problem. Although the American tuna fleet was the dominant fleet engaged in purse seining on porpoise, vessles of other nations were also involved. The federal government could directly regulate the fishing methods and gear of the American fleet, but it had no such autority over foreign vessels. To influence the fishing practices of foreign nations and to deter the evasion of regulatory requirements by transferring American vessels to foreign flags, Congress had to rely on indirect measures. Thus, it prohibited the importation of any fish that "have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards." 16 U.S.C. 1371(a)(2). For the United States, this action was to have the dual effect of "cleansing its markets of commerce which the Legislature finds to be unethical" (see *Cresenzi Bird Importers, Inc.* v. *State of New York,* 658 F. Supp. 1441, at 1447 (S.D.N.Y. 1987),[1] and of insuring that American fishermen, who would be required to assume added burdens and costs as a result of the required changes in gear and fishing techniques, would not be put at a competitive disadvantage.

In practice, the Act's provision restricting the importation of fish from other nations proved less than satisfactory. Although the Act directed the Secretary of Commerce to "insist on reasonable proof" from any exporting nation concerning its fishing practices, the Secretary typically accepted the paper certification by the foreign government in question that it met the Act's requirements. Rarely, if ever, did the Secretary have any actual knowledge of the numbers or rates of porpoises being killed by any foreign fleet. Despite the absence of any real data, the Secretary regularly assumed that foreign vessels killed porpoises at rates equal to those of U.S. vessels. See 1979 Status of Porpoise Stocks Assessment and accompanying FEIS. Meanwhile, the size of the U.S. fleet fishing in the eastern tropical Pacific Ocean was steadily declining, while the size of the foreign fleet was growing. In light of earlier repeated concerns that stringent regulation of U.S. vessels might cause their transfer to foreign fleets, the Secretary might well have concluded from this change in relative fleet sizes that the actual fishing practices aboard foreign vessels were considerably more lax than they were represented to be by foreign governments.

Despite the Act's requirements respecting the importation of foreign-caught tuna, it does not appear that the Secretary of Commerce ever failed to approve imports from any foreign nation that submitted information in support of its application. Although imports were barred from several countries, in each instance it was because those countries never sought approval under the Marine Mammal Protection Act, usually because their tuna products were already barred from the United States under authority of other laws. By 1984, Congress was persuaded that the Act's provision governing importation of tuna from foreign nations needed strengthening. That strengthening took the form of an amendment directing the Scretary to require of the government of any exporting nation "documentary evidence" that it had "adopted a regulatory program governing the incidental taking of marine mammals . . . comparable to that of the United States" and that "the average rate of that incidental taking by the vessels of the harvesting nation is comparable to the average rate of incidental taking of marine mammals by United States vessels." 16 U.S.C. 1371(a)(2)(B). Thus, from July 17, 1984, the Marine Mammal Protection Act sought to bar from the U.S. market yellowfin tuna from any nation that could not demonstrate that *both* its regulatory program *and the average rate of incidental taking* achieved under that program were comparable to those of the United States.

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[1] There is strong indication that Congress had ethical considerations very much in mind when it considered enacting the Marine Mammal Protection Act. The provision governing the importation of foreign-caught tuna originated in the House bill. The House Report accompanying that bill, after noting that "man's impact upon marine mammals has ranged from what might be called malign neglect to virtual genocide" observed that "[i]nterest in the welfare of marine mammals is manifested throughout the world" and that "solicitous and decent treatment for the animals may well also be in the long-term best interests of man." H. Rep. No. 92-707 at 11, 12 (1971).

Notwithstanding this unambiguous congressional directive, the Secretary took no immediate action to change the manner in which he had theretofore approved the importation of tuna from foreign nations. Rather, in a notice published November 29, 1984, the Secretary announced that, *as of January 1, 1986,* nations wishing to export tuna to the United States would be required to submit documentation that they met the requirements of the 1984 amendments, including the requirement that their average kill rates were comparable to those of U.S. vessels. 49 Fed. Reg. 46921. Notwithstanding that announcement, however, the Secretary did not in fact enforce the new requirements when that date arrived. Rather, he continued to permit the importation of tuna from nations known to be fishing on porpoise in the eastern tropical Pacific Ocean, notwithstanding that he had no information that such nations had achieved incidental taking rates comparable to those of United States vessels. In a further postponement of the 1984 requirements, the Secretary now took the position that approved nations would not be asked to resubmit data in compliance with those requirements until the Secretary subsequently issued regulations to implement them. (See, e.g., 51 Fed. Reg. 19644, May 21, 1986 (approving imports from Mexico)).

It was not until more than two years after the 1984 amendments, however, on August 13, 1986, that the Secretary even proposed regulations to implement their new requirements. See 51 Fed. Reg. 28963. Those proposed regulations languished for another nineteen months before the Secretary issued final regulations on March 18, 1988. 53 Fed. Reg. 8910.

In issuing the final regulations, the Secretary acknowledged for the first time the error of his prior longstanding assumption that porpoise kill rates of foreign vessels were the same as those of U.S. vessels. In fact, the Secretary now acknowledges that the kill rate for the aggregate foreign fleet "may be up to four times higher than the U.S. rate." 53 Fed. Reg. at 8914. The Secretary does not—and cannot—contend that such dramatically higher kill rates are "comparable" to those of U.S. vessels, a legal necessity for continued importation of tuna products into the United States under the 1984 amendments. Rather than enforce the unambiguous requirement of the law, however, the Secretary has elected instead to postpone it again, this time to 1991, seven years after Congress mandated the changes that the Secretary has steadfastly refused to implement.

The Secretary attempts to justify his action by arguing that overly stringent regulations (by which he means regulations that would require immediate compliance with the requirements that were statutorily mandated four years ago) might cause foreign fishing nations to look for other markets for their tuna rather than try to improve their porpoise kill rates in order to resecure access to the U.S. market. As a result, the U.S. might be unable to "retain influence" over those countries and thus lose whatever leverage it has to reduce the foreign kill of porpoise. Further, the Secretary attempts to justify his regulations by arguing that they are necessary "to minimize disruptions in supply of raw tuna to U.S. processors." Environmental Assessment, Nov. 1987, p. 4. These considerations, assuming they have any factual foundation at all, are either impermissible or irrelevant under the Marine Mammal Protection Act. They cannot justify a failure to carry out the clear terms of the Marine Mammal Protection Act.

NOTHING IN THE LANGUAGE OR LEGISLATIVE HISTORY OF THE 1984 AMENDMENTS TO THE MARINE MAMMAL PROTECTION ACT AUTHORIZES THE SECRETARY'S POSTPONEMENT OF THEIR REQUIREMENTS

In determining the meaning of a statute, analysis necessarily begins with its language. Where that language is clear on its face, no further resort to legislative history or other aids to statutory construction is necessary. Here, the language of the 1984 amendments admits of no doubt or ambiguity. Those amendments took effect their enactment on July 17, 1984. They require the Secretary to secure from any foreign nation engaged in tuna fishing on porpoise, and desirous of exporting its tuna to the United States, documentary evidence that the rate of incidental taking by its vessels "is comparable" with that of U.S. vessels. If the Secretary is unable to secure such evidence, it is the duty of the Secretary of the Treasury to ban the importation of tuna from such nation. The language of the statute is in the present tense and does not admit of an interpretation that allows continued importation on the basis that foreign kill rates may in the future be comparable to those of U.S. vessels. Cf. *Gwaltney of Smithfield, Ltd.* v. *Chesapeake Bay Foundation,* 108 S.Ct.

376, 56 U.S.L.W. 4017, 4019 (1987) (present tense language of the citizen suit provision of the Clean Water Act requires an examination of present, not past, conduct).

The clear language of the 1984 amendments is fully consistent with their legislative history. The need to strengthen the importation provisions of the Act was emphasized repeatedly at the 1984 hearings before the House Committee on Merchant Marine and Fisheries. One industry spokeman complained about the "failure to ensure some sort ot equal treatment throughout the international fishing fleet." See Heaings on Marine Mammal Protection Act Reauthorization, ser. 98-42, (1984) at 30 (statement of David G. Burney, U.S. Tuna Foundation). Another insisted that "[t]he question that the Federal Government has to look at in certifying a country [for import] is equivalency." *Id.* at 36 (statement of James P. Walsh, American Tunaboat Ass'n). The chairman of the Marine Mammal Commission warned, with respect to the growing foreign tuna fleet, that "it is not known how successful these fishermen are in employing porposie saving gear and practices." *Id.* at 20 (statement of Dr. James C. Nofziger). The environmental witness agreed "that the current regulatory scheme allowing importation of foreign caught tuna based upon a mere recital of consistency with U.S. standards places the U.S. fleet at a competitive disadvantage" and therefore pledged to "support amendments to to provide means by which to verify conformity with U.S. standards." *Id.* at 51 (statement of Environmental Defense Fund). Even the representative of NOAA itself acknowledged that because it sometimes receives "allegations or reports that a country is violating, it would be useful to be able to intensively review the observers' reports relative to the vessels of that country and to see for ourselves the integrity of the reports." *Id.* at 24 (statement of William G. Gordon).

The amendment that the House Committee fashioned in response to the concerns raised at that hearing is the provision ultimately adopted. The Chairman of the subcommittee in which the hearings were held explained the provision's intent as follows:

> We are concerned that the Departments of State, Commerce, and Treasury are not enforcing this provision strictly enough. We cannot impose severe restrictions on our own fleets and then allow foreign nations that do not even regulate the take of marine mammals to flood our markets with their products. The bill, as amended, would require the administration, in making the determination as to whether to allow the importation of yellowfin tuna, to look specifically at the regulatory program of the exporting nation and the incidental kill rate of their flag vessels to determine if their program and kill rates were comparable to those in the U.S. If they were not, importation of their products would be prohibited."

Statement of Congressman Breaux, Cong. Rec. at H5222 (June 5, 1984). The legislative history thus clearly shows that Congress was persuaded that more effective measures were needed to ensure that foreign fishing nations were being as diligent in protecting marine mammals as our own fleet was expected to be. Nothing in the legislative history of those amendments contains even the slightest intimation that Congress intended that the changes it mandated were to be postponed into the following decade.

THE CONSIDERATIONS RELIED UPON BY THE SECRETARY IN POSTPONING FULL IMPLEMENTATION OF THE 1984 AMENDMENTS ARE UNWARRANTED AND IMPERMISSIBLE

The Secretary offers a number of justifications for his decision to postpone until 1991 the requirement that foreign fleets demonstrate comparable kill rates to that of the U.S. fleet. None of those purported justifications, however, withstands careful analysis.

The easiest to dispose of is the Secretary's claim that his regulation is necessary "to minimize disruptions in supply of raw tuna to U.S. processors." The short answer to this concern is that it is impermissibly elevates economic considerations to the same level as conservation considerations. Under the Marine Mammal Protection Act, "[t]he interests of the marine mammals come first, and the interests of the industry, important as they are, must be served only after protection of the animals is assured." *Committee for Humane Legislation v. Richardson,* 144 F. Supp. 297 (D.D.C. 1976), *aff'd* 540 F.2d 1141 (D.C. Cir. 1976). Indeed, "the legitimate government interest of meaningful protection of the porpoise population" has even been held sufficient to justify constitutionally suspect warrantless searches. *Balelo v. Baldridge,* 724 F.2d 753, 766 (9th Cir. 1984) (en banc). The far less significant interest of avoiding disruption in supplies to a segment of an industry cannot determine the extent of porpoise protection on which the government will insist.

Beyond this, the claimed disruption is entirely speculative, for as the Secretary's own environmental assessment acknowledges, it is likely to occur only "if processors are unable to make up the shortfall through increased purchases of tuna from domestic vessels or other tuna harvesting nations." (p. 21). Moreover, any adverse economic impacts on domestic processors may be offset by economic benefits to domestic boat owners. Here again, the environmental assessment notes that "[l]arge scale, long-term prohibitions on imported unprocessed yellowfin tuna from ETP nations might also result in a positive impact on U.S. boat owners and operators through higher ex-vessel prices for their catch. Higher ex-vessel prices might also result in reactivation of part of the inactive U.S. tuna fleet." (p. 21). Thus, even if the Secretary could elevate economic considerations to the same level as conservation considerations, which he cannot, it is far from clear that the economic consequences of implementing the law as it is written would be anything more than an a wash for the U.S. economy.

Finally, it is unclear why possible disruption in supplies to domestic processors is an overriding consideration when considering possible embargoes under the Marine Mammal Protection Act, while it was never such a consideration when tuna imports were barred under other statutory authority. In the past, tuna imports from Mexico, Ecuador, and Peru were all embargoed under authority of the Fishery Conservation and Management Act in retaliation for their seizure of U.S. vessels fishing in exclusive economic zones that we did not recognize. Imports from Spain were at the same time embargoed under authority of the Tuna Conventions Act. See 47 Fed. Reg. 11307 (March 16, 1982). If disruption of tuna supplies was not a reason for withholding statutorily mandated embargoes under those statutes, it clearly cannot be under the Marine Mammal Protection Act.

A second justification for the Secretary's delay in imposing the statutory requirements is the concern that to impose them immediately might lead any nation whose products were banned from the U.S. market to look for markets elsewhere rather than try to reduce its rate of porpoise mortality to assure continued access to the U.S. market. To demonstrate the basis for this concern, the Secretary cites the example of Mexico, which, after having its tuna banned from the U.S. market, developed new markets in Europe that now make it largely independent of the U.S. market. The Mexican example, however, is not nearly as compelling as the Secretary asserts.

Mexican tuna was initially banned from the United States for reasons having nothing to do with the protection of marine mammals. Mexico claimed exclusive jurisdiction over all fisheries within 200 miles of its coast. The United States refused to recognize this claim with respect to tuna, a type of fish that, under our Fishery Conservation and Management Act, 16 U.S.C. 1801 *et seq.*, is considered to be "highly migratory", and therefore not within the exclusive jurisdiction of any coastal state. When Mexico seized an American tuna vessel for unauthorized fishing within its 200 miles zone, the United States responded, under authority of section 205 of the FCMA, 16 U.S.C. 1825, by banning further imports of Mexican tuna. See 45 Fed. Reg. 47562 (July 15, 1980). Subsequently, Mexico never bothered to submit a request for renewal of its Marine Mammal Protection Act authority to export tuna to the United States. Thus, an embargo against importation of Mexican tuna under authority of the Marine Mammal Protection Act was added to the preexisting FCMA embargo. See 46 Fed. Reg. 10974 (Feb. 5, 1981).

The political standoff with Mexico over tuna continued for more than five years. The dispute was always primarily over the question whether the waters within 200 miles of Mexico's coasts were within its exclusive jurisdiction or whether they were open to American tuna fishermen to come and go as they pleased. From the Mexican perspective, the issue was a fundamental one, directly involving its national sovereignty. Rather than compromise its national sovereignty by submitting to American demands, Mexico decided to take its fish elsewhere. Having successfully developed new markets in Europe, Mexico continues to export most of its fish there and relatively little to the U.S., despite having reached a rapprochement with the latter on the jurisdictional issue.

While admitting the possibility that other nations might respond to a closure of the U.S. market under the Marine Mammal Protection Act by seeking markets elsewhere, the example of Mexico is hardly convincing evidence that they will do so. For Mexico the alternative to seeking new markets was to sacrifice national sovereignty; that Mexico was willing to go to the lengths it did to avoid knuckling under to U.S. pressure on an issue of national sovereignty is not surprising. That it or other nations would go to similar lengths because of Marine Mammal Protection Act requirements is far less likely. Moreover, the United States need not be a passive bystander if foreign fishing nations look to Europe or other markets as substitutes for a closed American market. Section 108 of the Marine Mammal Protection Act directs the Secretary, through the Secretary of State, to "initiate negotiations . . . for the development of bilateral or multilateral agreements with other nations for the protection and conservation of all marine mammals." 16 U.S.C. 1378(a)(1). Through such negotiations, the United States might reach agreement with other nations that would keep them from becoming the dumping grounds for tuna caught without regard to marine mammal concerns. The action of the European Economic Community in closing or considering closing European markets to seal pelts, kangaroo products, and furs acquired with steel-jawed leghold traps suggests that European authorities may well be receptive to such overtures.

Finally, the Secretary seeks to delay imposition of the requirement for comparable kill rates in order to secure a larger data base upon which to make the necessary comparison. Apparently, the Secretary does not view a larger data base as essential to making the judgment required of him, for the regulations contemplate that comparability determinations may be made in the future for new entrants into the fishery on the basis of data no more extensive than that currently available. Beyond the inconsistency of the Secretary's own position, however, is the fact that the statute simply does not give him the luxury of delay. He is to make the required determination on the basis of the data available to him. If he has no data, he must make a negative determination; if he has only limited data, he must make a determination upon it.

The Secretary's recent regulations, by postponing until 1991 compliance with the requirements that Congress mandated in 1984, fail to carry out those requirements and are plainly inadequate. They must promptly be revised to require that foreign nations exporting tuna to the United States demonstrate that they are in fact achieving incidental mortality rates comparable to those of U.S. vessels.

Senator KERRY. Thank you very much, all of you. I appreciate your testimony and I think it has been important.

Let me just ask you a couple of the harder questions if I can, or maybe they are not hard for you. But Ms. Scheele, there is an incompatibility, I think, in your written statement that I want to discuss. You talk about the reflagging of vessels that has taken place by some vessels to get out from under the U.S. requirements, correct?

Ms. SCHEELE. Yes.

Senator KERRY. If you move to zero and place those requirements on all of our vessels, why would there not be a mass exodus of reflaggings simply to avoid altogether the zero requirement?

Ms. SCHEELE. I think that that is a large possibility. The people that have been working with this issue have for years been told by the National Marine Fisheries Service that certain regulations, if they are too strict on the U.S. fleet, will just cause a reflag and then we will have just shifted the problem to the foreign fleet, where regulations do not exist—and where we have no control.

Senator KERRY. So what is the next step?

Ms. SCHEELE. The next step is to look at the market. We are one of the NGO's that are right now looking at the European market. We have a resolution on the floor of the European Commission today to restrict the importation of yellowfin that is caught on dolphin.

I had not actually finished that. We have often heard that if we came down too hard on our own fishery, they would simply reflag. We have been told by National Marine Fisheries Service that if we implement regulations designed to make the foreign fleet comparable, they will simply find other markets.

Senator KERRY. I hear you describing the problem.

Ms. SCHEELE. Yes.

Senator KERRY. But I am not sure I hear the solution. I mean, I think we are aware of the problem and we have heard it defined on a couple of fronts now. But again, I want to get out from under this Catch 22.

What action can we take? Mr. Bean, maybe you can help us. What can we do? If they are going to reflag to get away from a zero requirement—and Mr. LaBudde has very graphically described the needs of the business, and the market is there for the tuna—and we are not going to have the ability to cut off the other fleets, then where is our best angle of attack?

Mr. BEAN. Well, I think the provisions of the law as amended in 1984 give us a very powerful tool to influence foreign behavior. Unfortunately, the government has not been willing to use that tool.

Senator KERRY. That tool being?

Mr. BEAN. That tool being closure of the U.S. market to those foreign fleets that do not achieve comparable mortality rates.

Senator KERRY. What do you say to Mr. Fullerton's response, they will simply open up another market?

Mr. BEAN. The response I gave a moment ago is that the U.S. need not be a passive bystander and watch that happen. The U.S. can, in concert with other consumer nations, take international action to prevent that from happening. There is every indication the European Community may be very receptive to such an overture.

Senator KERRY. Do you think the State Department has done anything in that line?

Mr. BEAN. I am not aware of it having done so and I rather doubt that it has.

Senator KERRY. Do you think it can be done without the State Department's involvement?

Mr. BEAN. I think it certainly would be facilitated by the State Department's involvement. What has happened to date in the European Community, according to my understanding, has been entirely the result of non-governmental overtures to the European Community.

Senator KERRY. Ms. Scheele, when you showed the lack of improvement in the domestic industry, you relied very heavily on statistics from 1986, when in fact, what was it, there were 20,500 porpoises killed. But in fact the 1987 statistics show a 32 or so percent decrease in that, down to about 14,000 animals.

Does that reduction affect the statistics which you cite in terms of showing lack of effort, compliance?

Ms. SCHEELE. Unfortunately, the reason I had to use 1986 statistics is kill per set and kill per ton figures are not out for 1987, nor is the Inter-American Tropical Tuna Commission's annual report. So 1986 were the fullest records that I had to date to utilize with respect to statistics.

In 1987, the U.S. fleet was reported to have killed just under 14,000 dolphins. We have seen a variability in the mortality. Mortality levels will vary. Dr. Joseph said we will probably see them vary within the foreign fleet as well.

And the point is that we have been looking at a variance of between 15 to 20,000 for the last ten years. Is that considered a reduction to zero?

Secondly, it is important to note that the fishery did suffer a closure in 1986. Perhaps the fishery had been reminded that there was a Marine Mammal Protection Act out there.

Senator KERRY. Mr. LaBudde, when you were a crew member on this Panamanian vessel—correct, that was Panamanian? Were adequate measures taken to try to minimize the kill at any time?

Mr. LABUDDE. There were attempts made at utilizing the backdown procedure. That is about as far as the extent of releasing the animals went.

Senator KERRY. What percentage of the time would you say efforts were made?

Mr. LABUDDE. 60, 65 percent.

Senator KERRY. Now, I understand the boat that was shown in the film had much lower than average tuna catches in recent years. And in addition, you said that you worked under two captains with as many as 40 different crew people over a period of time.

Is inexperience and turnover a problem in terms of people's willingness to comply and knowledge about how to comply?

Mr. LABUDDE. To comply with the reduction in mortality?

Senator KERRY. Yes.

Mr. LABUDDE. I am not sure I am getting the gist of your question.

Senator KERRY. Well, is the indifference to the effort to try to save dolphins the result of——

Mr. LABUDDE. The turnover by the crew?

Senator KERRY [continuing]. Inexperience and poor operation, or is it just the result of a fundamental attitude that pervades no matter who is on board?

Mr. LABUDDE. I think the result in large part of the turnover on our crew. There is in my experience with talking to the personnel on board the boat, it seems there is sort of a pretty fast turnover among crew members on tuna boats. Some of the people I talked to had worked on as many as 20 boats in a ten year period.

Our boat did initially suffer I think what would be termed lower than average catches the first two months. But as we started out under our first captain, we were not operating within a code group, as most boats are, where there are eight to ten ships that swap information back and forth over their radios.

We did not have permits to fish close in shore where a lot of the dolphin seemed to concentrate with the tuna during the winter months. And so we were pretty much out on our own, pretty far out to sea.

I did talk with crewmen aboard other vessels who were in code groups and who were suffering some of the same sort of lucklessness in their fishing operations.

Senator KERRY. Did you come away from your crew experience with a sense that operations on this boat were worse, average, or better than others? Do you know?

Mr. LABUDDE. As I mentioned, Mr. Chairman, I realized that the U.S. has made some progress and that by and large I feel probably a lot of their operations are much cleaner and more efficient in reducing dolphin mortality.

But because of my conversations with the crewmen and with foreign and former U.S. observers, I know that a lot of the things that I saw happening on this boat and that I filmed happen on domestic vessels as well as other vessels in the international fleet.

Senator KERRY. Senator Wilson.

Senator WILSON. Thank you, Mr. Chairman.

Mr. Bean, I am not quite sure of what the position of the Environmental Defense Fund is with respect to the reauthorization. You are obviously for reauthorization, but it sounded from what you said that for the most part your unhappiness is with the implementation and the delay in the regulations by the Federal government, by the National Marine Fisheries.

Is that correct?

Mr. BEAN. Well, my testimony is limited to the issue of importation of foreign-caught tuna and specifically the regulations that purport to implement the 1984 amendments. Quite clearly, the Act as amended in 1984 was intended to do something that the agency administering the Act has not yet done, and I think that is critically important.

Senator WILSON. I agree with you on that.

Let me ask you, though, you have also expressed in response to the Chairman's question some optimism that the United States, acting in concert with other consumer nations, can affect behavior by offending nations who are not complying with the quota kill requirements.

That may be true, but would it not make some sense for us to first change the regulations to update or to move up in time the requirements with respect to imports? And would it not make sense to first ascertain whether or not we are going to have that cooperation from other consumer nations?

Otherwise, it seems to me the chairman's question to Ms. Scheele is the pertinent question: May we not succeed simply in driving yet other fishermen under foreign flag, where they are in fact exempt from our requirements, exempt from the Marine Mammal Protection Act?

Mr. BEAN. As to the need to change the regulations, I emphatically agree they need to be changed. The regulations, as I said a moment ago, do not require comparability of kill rates until 1991. That is inadequate and that definitely needs to be changed.

I think it would be advisable on a very expedited basis to test the waters in Europe and elsewhere, to see whether there is receptivity to joint action to address this problem.

I would point out to you, though, that there is another consideration. Part of the reason that Congress in 1984 passed the amendment it did was because of a concern that the U.S. fleet, which must operate under extensive regulations, is put at a competitive disadvantage by having continued importation from foreign fleets not required to comply with similar requirements.

That is a problem that will continue irrespective of where that tuna ends up caught by foreign fleets.

Senator WILSON. Well, that is true. On the other hand, I think that even that aspect, the competitive disadvantage, is lessened clearly if you are able first to gain that kind of cooperation. I am less sanguine, I think, than you about the possibilities of achieving that.

Mr. **Bean**. Senator, if I may add one point.

Senator **Wilson**. Yes, please.

Mr. **Bean**. Part of the government's case for the likelihood of foreign fishing nations looking for other markets rests very heavily on the experience with Mexico, whereby Mexico did turn to Europe to sell its tuna. But I think it is important to point out that the embargo of Mexican tuna stemmed from a dispute over their sovereignty within their 200 mile zone.

That is a rather different and rather more fundamental matter than disputes over how many porpoises you are allowed to kill while catching tuna. The fact that Mexico for five or six years was unwilling to knuckle under to what it saw as American demands to sacrifice its claim of sovereignty over its 200 mile zone is a wholly different matter from whether Mexico and other foreign nations would view restrictions of the sort the Marine Mammal Act imposes in a similar vein.

So I think the incentive for Mexico to look for other markets was a whole lot stronger than the incentive would be for any nation acting under threat of a Marine Mammal Act embargo. They do not have to sacrifice national sovereignty over territory they claim.

It is a whole lot less politicized an issue than that. And for many of these countries, the American market is not one they can easily give up. America is, after all, the closest major consumer and they have a history of supplying that market. It is not as though they can simply see that market disappear one day and find another market the next day with no trouble.

Senator **Wilson**. Well, there is some difference, I will grant that, but, I think that the example that you offer is instructive, because it seems to me that it does point up the fear that has been voiced here that those who are not subject to our regulations would, if threatened with a cutoff of imports, simply seek other markets.

I think that is a central issue because the film makes clear that, if we are to take that example as typical, foreign flag vessels are conducting what earlier Mr. Breaux termed a slaughter.

And I do not think that claim can be made of the U.S. fleet. There is a fundamental difference of opinion, obviously, with respect to whether or not purse seining on porpoise should be permitted at all. Mr. LaBudde and others think that it should not and they are seeking a zero kill.

Let me ask Mr. LaBudde. The Chairman began to pursue the point that I was curious about, too. Did you say that the catch in the time that you were aboard this vessel was only 20 tons?

Mr. **LaBudde**. I did not say that, Senator, no.

Senator **Wilson**. I am sorry. What did you say?

Mr. **LaBudde**. There is something in my statement where I made a reference to the fact that in the one set that you saw in the film we only caught about ten or twelve tuna, because there is no real guarantee of the quantity you can catch. And what I did was I said that, even so, that I do not feel like a catch of 20 tons, which I believe was the average catch per set by the U.S. fleet in 1986 or 1987, justified the use of the procedure. That is what I said.

Senator **Wilson**. So you do not know what the catch was?

Mr. **LaBudde**. On our boat?

Senator **Wilson**. Yes.

Mr. **LaBudde**. It varied. Sometimes we caught as much as—our sets on dolphin were not terribly productive sets. We had much better luck in our fishing operations with setting on the other species not related to dolphins, that is skipjack primarily.

Senator **Wilson**. How long were you on the vessel?

Mr. **LaBudde**. I was on the vessel for a period of five months, four of which were spent at sea.

Senator **Wilson**. Did I understand your commentary while the film was going on to say that you chose a Panamanian vessel because of the impossibility of taking pictures on a U.S. vessel?

Mr. **LaBudde**. I chose a foreign vessel. I did not know when I set out what nationality it would be. I just felt from discussions with people that were more—had a little more background on it that it would be impossible to document this type of fishing operation on U.S. boats, where it is my understanding that even still cameras are not allowed.

Senator **Wilson**. What was the contact that you had with the observer who was aboard your vessel?

Mr. **LaBudde**. The observers I referred to, U.S. and foreign, were not aboard my vessel. They were people I talked to in Mexico, working out of the Tuna Commission office there, and observers that I have since talked to who were observers aboard domestic vessels.

Senator **Wilson**. Some of these were U.S. observers, you say?

Mr. **LaBudde**. I am sorry?

Senator **Wilson**. Some of these were U.S. observers?

Mr. **LaBudde**. Yes.

Senator **Wilson**. Or former U.S. observers.

Do you have the names of these people? Would they be willing to come forward and testify?

Mr. **LaBudde**. Would it be possible to defer this question to my associate here? The people that we have talked to would be willing to testify but this is sort of a delicate matter because of the context and the allegations that we have heard.

One of the problems we had was that, because of the minimal amount of time that we had in order to prepare for these hearings, that we could not quite finalize testimony in time to present it here today.

Senator **Wilson**. Well, I think, since by your own admission you are relying on hearsay, or at least you are relying on what has been told to you—it is hearsay to us—we would be remiss in our duty if we did not want to talk to the people who were your source so that we could find out from them precisely what their knowledge was and what they saw, because obviously there are observers on all these vessels.

And in the case of the U.S. vessels, we know exactly what the compliance has been because of those observers. Now, we have heard testimony this morning that the Commission knows what it is with respect to the vessels from other nations. Those nations know whether or not or to what extent they are complying.

But no one else does. Dr. Joseph expressed the expectation that they will make that public. But I am curious, because obviously the films that you showed this morning were deeply affecting, but the question really is was that, as the chairman has indicated, an aberration or was that, as you were indicating, the norm.

And really the question, I think, apart from the fundamental objection that you have to purse seining, the question is what has been the compliance on the part of the U.S. fleet, the domestic industry, and what has it been with respect to the foreign fleet.

And all the indications that we have is that the kind of thing that you were demonstrating in that film is not the norm for U.S. fleets. And I happen to know personally that efforts, extraordinary, literally heroic efforts, have been made in some cases by U.S. fishermen to prevent porpoise kill, including a 22 year old fisherman who lost his life down in the net throwing porpoise out, when he was attacked by a shark.

So I do not think that what we saw this morning is in any way typical of the U.S. fleet, and I think the focus of this committee quite properly should be what can we do to prevent that kind of carnage by the foreign fleet.

And admittedly, there may be a fundamental difference with respect to the basic point of your presentation, which is that there should be no purse seining allowed, or at least no fishing on porpoise.

But as affecting as was the film, to be relevant to the consideration of what the performance by the domestic fleet has been, I think that we would have to say it is not a film of a U.S. boat and it is not representative.

Now, I think that the complaint that has been made this morning that the agency has been slow is true. And I really think we should pursue why it will take until 1991 to impose these import restrictions.

Mr. LaBudde. May I respond?

Senator Wilson. Yes, go ahead.

Mr. LaBudde. I would only like to say that I do agree with you that some U.S. vessels and their crew members and captains do indeed go to extreme and very dedicated efforts to save dolphin once they are trapped in the nets. What I was trying to relay to members of the committee and people here today is that these things do happen on U.S. tuna boats. I would like to say that I feel that what is shown on the film is representative of the U.S. fleet. Death is hardly something that can be qualified as to the degree with which individuals are affected. If there are any other kinder ways to kill dolphins in tuna nets or ways in which to kill them that they do not mind nearly so much, I would be very happy to hear about it.

The disaster sets happen, the drownings happen, the repeated chase and harassment of these animals happens. Injuries happen. And from my conversations with U.S. observers, I know that a lot of the other atrocities which you saw here today do happen.

And I feel that the contention or the confidence that we have that unobserved captains always behave as conscientiously and as religiously to save dolphins when there are not observers on board is not something that we can have a high degree of confidence in accepting.

Senator Kerry. Senator Breaux.

Senator **Breaux**. Thank you, Mr. Chairman, and I thank the panel. I was sorry I was not able to be here for much of the testimony.

Is it LaBudde?

Mr. **LaBudde**. LaBudde, sir.

Senator **Breaux**. I get an impression from the first page of your written statement, and this is the questioning that Senator Wilson was pursuing, that you are basically saying that the U.S. tuna industry has disastrous sets occurring, that the incredible harassment and repeated chase and capture happens on U.S. vessels.

The impression from a public perception is that the U.S. industry is not doing a very good job. Am I correct in reading that out of the statement, the very beginning of your testimony?

Mr. **LaBudde**. Well, Mr. Senator, if I can rely on the fundamental distinction that I have made relating to purse-seining and as relating to the industry's position on it, I do feel that the whole method of fishing is inappropriate, as far as any contention or assertion that I have made that they are not working as hard as they could to reduce dolphin mortality.

Senator **Breaux**. Well, I appreciate what you are saying, and I can understand your position because further on in your testimony you say, "I knew absolutely nothing about this issue eight months ago." I think that is part of the problem that you have.

Let me finish, and you can comment in any way you want.

The situation in the 1960s and the 1970s was deplorable across the world. We were killing literally hundreds of thousands of porpoises by fishing for tuna.

The situation in 1988, if you look at the history, is incredibly different. The U.S. tuna industry has a quota which was painfully negotiated and agreed to by the industry, by this Congress, by the administration, and by environmental groups that sat at that table.

The industry last year was substantially lower than that quota. The industry had effectively 100 percent observers on the vessels. Less than 1 percent of the tuna that they caught was killed. That was an incredibly positive strong record.

To come before this Congress in 1988 after the history that we have been through and to, in effect, throw in the U.S. industry with the foreigners who are in fact slaughtering tuna I think is very unfair to the industry that has worked and tried to cooperate.

Mike Bean, who is sitting at this table, knows what I am talking about, because those quotas were not easily arrived at. 20,000 was a figure that was very difficult to come to an agreement on, and the industry has been below those takes.

It is patently unfair to try to throw the U.S. tuna industry in with the foreigners who are doing the slaughtering. It is a misimpression, and the record should clearly reflect it as such, at least in this Senator's opinion.

Now, if we take this attitude and dump on the U.S. industry, it is not going to be real incentive for them to sit back at the negotiating table with the groups that they worked with back in the 1980s and say we are going to make further improvements if we are going to come back to the table and get blown out of the water publicly with the false impression that I think your film has presented.

That is not with regard to the ship that you were on. That is deplorable; that is slaughter; but that is not the U.S. industry.

Senator **Kerry**. John, in defense of Mr. LaBudde, and I am not——

Senator **Breaux**. Let us let him respond to it. I am beating up on him, and I do not want to do it without his having a chance to respond.

Mr. **LaBudde**. As I also go on to say in my testimony, I do not believe that this continual slaughter in any degree was what Congress and certainly not what the American people had in mind——

Senator **Breaux**. I have no problem with that, and that is my feeling with regard to the foreign fleet; but not the U.S. fleet.

Mr. **LaBudde**. As far as the U.S. fleet goes, from my examination of the Tuna Commission's annual reports and history of the fishery, there has not been any significant progress made in reducing domestic mortality under the tenure of this administration.

Senator **Breaux**. Are you saying that we have not reduced the mortality of the porpoise takes as we passed the law and the programs that have been implemented?

Mr. **LaBudde**. No. I am saying since 1981 when the original quota of 20,500 was implemented that there has not been a significant reduction in the annual——

Senator **Breaux**. Have we violated the quota during that period? Has the industry exceeded the 20,000 last year?

Mr. **LaBudde**. In 1986, yes.

Senator **Breaux**. What about in all the other years? We have met the quota; is that right?

Mr. **LaBudde**. Yes, we have. I think it is important to remember that in 1981 when the quota was first passed, there were only 100 boats in the U.S. fleet. Since then, the number of boats has dropped in the U.S. fleet——

Senator **Breaux**. Now let me tell you something else. In 1984 when we agreed to the quota and wrote it into the law, and Mr. Bean can comment on that, the agreement was 20,500 porpoises that could be taken. There were 34 boats in the U.S. industry at that time when this group and others agreed to the 20,000 quota.

Last year, there were 35 boats. So at the time that the groups agreed to the 20,000, not when we agreed to it at first in 1981 but when it was written into law with everybody's agreement in 1984, we had 34 U.S. boats. Now we have 35.

So the 65 percent reduction that Ms. Scheele talked about may have been based on when the quota was first established back in 1981, but when everybody agreed to it in 1984, when we wrote it into the law, we were looking at about 34 tuna boats. Now we have about 35 in this portion of the world.

So it is not a 65 percent reduction in the vessels from the time that it was written into the law and everybody agreed to that 20,000 quota.

Does anybody differ with that?

Mr. **Bean**. I do not remember the precise numbers, but the thrust of your remarks is, I believe, correct.

If I could just add a bit, Senator Breaux, I agree with the basic thrust of your remarks, and that is why my testimony this morning has focused on what I believe to be the most important problem, the foreign fleets' killing of porpoises.

You will remember that we also added to the act in 1981 a provision that directed the government to carry out a research and development program to find alternative ways of catching tuna without killing any porpoise.

One of my significant disappointments and, frankly, one of the difficulties I have in explaining to some of my environmental colleagues as to why the Environmental Defense Fund has been a party to these agreements is that nothing has been done to implement that.

I happen to think that that was a good idea in 1981, and I happen to think it is still desirable to explore the possibility of alternative ways of catching tuna without killing porpoise.

So while agreeing with you that the U.S. fleet has certainly made dramatic progress since this act was passed in reducing its killing of porpoise, I personally subscribe to the view that it would be highly desirable to reduce it still further. One of the ways in which that might be done is through the development of alternative fishing techniques that you and others in Congress said was to be done in 1981.

Senator KERRY. Let me just say that that was one of my questions. We are going to leave the record open because there are a number of questions which we did not have time to submit to some of the other panels, and among them were questions about the research requirements and what has or has not been done in terms of research since that period of time.

I do not mean to interrupt my colleague at all, but I just wanted to clarify that.

Let me just say that I was here during the film, and I listened to Mr. LaBudde, and it was not this Senator's understanding that there was any kind of major assault on the domestic fishing industry. I do not think that was the thrust of his comments. I did not understand it to be.

I think in answer to Senator Wilson's question, Mr. LaBudde asserted that there are some boats that are less than conscientious, that there are some difficulties, but I certainly did not read it as directed there.

My impression was that it was a graphic demonstration of what happens with the foreign fishing fleets and why this continues to be a problem and what can, in fact, happen in some aberrations even within domestic.

I think it was more a part of his advocacy and Ms. Scheele's advocacy of a zero kill number to which their comments were directed rather than at the question of quotas being met or not met.

You can speak for yourself, but that was certainly my understanding of it.

Senator WILSON. Mr. Chairman?

Senator KERRY. Yes, Senator Wilson?

Senator WILSON. If I might, the one point that I am concerned about is that in his testimony earlier and in his responses, Mr. LaBudde said that while he thought that there were unquestionably captains and crews that were dedicated and that did take enormous pains to safeguard the porpoise who were caught, that based on conversations that he had with former observers and with others, official and otherwise, he thought that not all boats and all skippers and all crews were that conscientious.

The point that I find as one that needs to be pursued is the one that came out by application in Mr. Breaux's remarks to Mr. LaBudde just a moment ago; that is the fact that there has been virtually 100 percent observer participation.

So I am not seeking to embarrass Mr. LaBudde, but it is why I did ask the question about the hearsay character of the evidence that you are bringing before us.

To my knowledge, we have highly reliable information on the performance of the domestic industry based upon the fact that we have had just about 100 percent observer coverage.

Senator **Kerry**. Senator, let me answer that by saying I agree with you. That issue was raised. Mr. LaBudde and Mr. Phillips, who is with him, have asserted that there are people who would be willing to come forward.

This committee will try to talk to those folks. We certainly want to know if that is happening, and we expect and appreciate your cooperation in our efforts to be able to to do that.

Is that fair? You will assist us to try to pinpoint that?

Mr. **LaBudde**. I do not think there is a problem with that.

Could I defer the response for the record to Mr. Phillips?

Senator **Kerry**. Yes.

Mr. Phillips, I understand that your group has helped put Mr. LaBudde's testimony together. Do I understand that you know who these folks are?

Mr. **Phillips**. We have been in communication with certain people that I think could bring some relevant information to the committee.

I think the point with regard to Mr. Wilson's comments is that I think the National Marine Fisheries Service would recognize that a significant portion of the mortality in the U.S. fleet comes from a minority of the boats and that there have been problems on the U.S. fleet, acknowledged problems, that have been the reason to call for a 100 percent observer program which was only in place last year and is not in place now.

So this sort of disaster set, very few sets like these, by a few boats, by a few operators who were not operating consistently with the dolphin saving techniques, can still result in very high mortality. I think that that has been the cause of comments, including those by the Marine Mammal Commission, that observer programs need to be maintained at high levels, performance standards need to be evaluated, and that constant vigilance with regard to not only the foreign fleet but the domestic fleet is essential.

Senator **Kerry**. The next panel may be able to help us with that, and I think we have to move on to it.

Senator **Breaux**. May I ask just one question on that point?

Senator **Kerry**. Yes.

Senator **Breaux**. Are you saying, Mr. Phillips, that former observers or current observers would testify that information that they have supplied as observers is incorrect and inaccurate?

Mr. **Phillips**. I think that we can bring some observers before you that can testify for themselves about their perceptions of how things are going on the U.S. fleet more convincingly than we can without having been out on those boats.

Senator BREAUX. You said perceptions. Now, what they have to do is file reports. It is an official government document within the National Marine Fisheries Service. It is documented and charted and we depend on it.

My question is would they say that the information that we have from the observers has been falsified?

Mr. PHILLIPS. I would rather let them speak for themselves. I think that there are some relevant questions there that would bear some further analysis. I am not ready to speak for them now, but I do think the whole question about the reliability of data is an essential one.

We have fundamental questions about the reliability of all the estimates being presented.

Senator BREAUX. Do you have any information that would indicate that the data that we are using and receiving from the observers is unreliable or inaccurate?

Mr. PHILLIPS. Yes, we particularly doubt the veracity of the foreign data.

Senator BREAUX. I am not talking about the foreign data, because we do not have our observers on foreign vessels.

I am talking about the effective 100 percent observer coverage that we have on the U.S. tuna vessels. Are you saying that you have evidence that indicates that observer information is incorrect, unreliable, inaccurate?

Mr. PHILLIPS. Yes, and we would be pleased to furnish [1] information to the Committee along those lines. In addition, a 100 percent observer program was only in effect last year and is not in effect now.

Senator KERRY. Let me now ask if we could move to our last panel, which may help resolve some of these questions: Mr. Burney of the United States Tuna Foundation; and Mr. Felando of the American Tuna Boat Association.

[Pause.]

If we could have order, please. We want to try to proceed as expeditiously as possible.

Mr. Burney and Mr. Felando, we welcome you.

Do you have an order of preference as to who goes first?

Mr. BURNEY. I will go first.

Senator KERRY. I understand you have a film on how this should be done correctly. Is that accurate?

Mr. BURNEY. We hope that that is what it depicts, Senator, yes. Do you want to show the film first?

Senator KERRY. Whatever you want to do. I would like you to bear in mind we have about five minutes for each.

Mr. BURNEY. We will go ahead and give our testimony first, and then we will show the film.

Senator KERRY. Go ahead, Mr. Burney.

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[1] The material provided was not reproducible.

STATEMENT OF DAVID G. BURNEY, GENERAL COUNSEL, U.S. TUNA FOUNDATION

Mr. BURNEY. I thank you for giving us the opportunity to testify here today on reauthorization of the Marine Mammal Protection Act.

You have already stated that our written testimony will be made a part of the record of this proceeding; therefore, I will not refer to that testimony. I think it might be more productive if I randomly answered some of the questions or charges that were made earlier and then take questions on my answers after we are through.

I would like to point out one thing about the film. The film is despicable. There is nobody in the U.S. tuna industry that would do anything other than condemn the activities that were reflected on board that vessel. It is interesting to note that the vessel caught, I think the gentleman said, 10 to 12 fish in that particular set.

It proves a point that we have been making to the mainstream of the environmental community over the last 12 years. There is a direct correlation between fishing efficiency and the removal of marine mammals from the net. If you are good at removing marine mammals you are going to have a more efficient fishing operation because time is a major part of an efficient fishing process.

If you have a set as depicted in the video where you have marine mammals in canopies and going up to the power block, you are going to be there all day. I do not care whether you have 10 fish in the net or you have 100 tons of fish in the net.

The idea that the U.S. fleet is more efficient at protecting porpoise when they are observed, and when there is no observer on board they go back behind a black cloud and do not make the same effort, I thought, was laid to rest back in 1981. Certainly it was laid to rest in 1984, as Senator Breaux stated, when we had a series of meetings to try to put some rationalization into this entire issue.

It was in 1984 that everyone recognized for the first time that trying to discover the optimum sustainable population of every marine mammal population in the eastern Pacific did not work. Everybody said what do we do? We all agreed that we should look to population trends and abundant indices in the future and try to discover what was really happening out there from that date forward. Never to go back again to 1959, 1960, 1963 where we have no data.

When a person stands up and says 6 to 10 million porpoise have been killed in the fishery over the last 15 years, it is a dumb statement. We have absolutely no idea what went on in the fishery in the early years. We cannot use that data any more than an environmental group trying to make their case can use that data.

We could not even use the data that scientists worked on for about eight or nine years when they were trying to establish optimum sustainable population. We all threw our hands up. We came back to the Congress and we said give us a program we can all work with. Give us something that is consistent. Give us something that is predictable.

If we are going to address the foreign mortality issue, then one thing we have to do with the foreign nations is say we want them to comply with the U.S. vessel program. Our program is predictable, and it is consistent. It is predictable because of the statutory quota. It is consistent because our constant objective is to minimize the marine mammal mortality to the lowest levels possible.

Anyone that stands up in a hearing room and says that the U.S. fleet has not acted responsibility, just has not paid attention to this issue over the last 10 years. We have been responsible. This is proven by the tuna fleet's record over the last two or three years.

It does not mean that the tuna fleet is never going to reach a quota in any one year. There are so many variables in this dynamic fishery, variables that were taken into consideration by Congress when it set the quota at 20,500. Because of this the fleet may come close to the quota in any one year.

In other years when the dynamics are in the fleet's favor, they are going to be substantially below that quota. The quota was set at a level that all parties agreed was fair and would not have a serious adverse effect on the stocks long term.

We have a serious problem with foreign mortality, and it is easy to bash the foreign fleets and say stop them, do not not allow any more fish to come in from those countries.

The real way to address the issue however, is to get these countries to adopt U.S. techniques and our technology. There is no excuse for them not having done this since you passed the amendment in 1984.

It should have been done three years ago. Unfortunately, the regulations were just promulgated. We have to either review these regulations further or support them as is to ensure that we reach the objective of reducing the mortality to the lowest level that is possible.

It is a misnomer to talk about what you just saw on the screen as a "disaster set". It was much more than a disaster set. If you looked at the activities on board the vessel it appeared that there was no effort being made, which is completely contradictory to the record of the U.S. tuna fleet in this fishery over the last 10 years.

I will stand behind what the U.S. observer records reflect. I cannot say that I have interviewed all of the U.S observers, but we do maintain an expert skippers panel that reviews those records. If we see something that is being done that should not be done, we correct it. That has been the secret behind our program.

I hope that you will take the time to go back and look at the record, understand why the quota was set, and understand the need for consistency and predictability. I think anybody that takes the time to do that will recognize that we have been responsible.

Thank you.

[The statement and questions and answers follow:]

Statement of David G. Burney, General Counsel, U.S. Tuna Foundation

Mr. Chairman and members of the Committee on Commerce, Science and Transportation, I offer this testimony with respect to the reauthorization of the Marine Mammal Protection Act (MMPA) on behalf of the entire U.S. tuna industry.

In my capacity as General Counsel to the U.S. Tuna Foundation I have represented the domestic tuna industry on matters pertaining to the MMPA since 1976. I worked closely with the staff of this Committee in 1981 and 1984, when the last substantive amendments were made to the MMPA.

Since 1984 I have represented the U.S. tuna industry in a variety of meetings scheduled by the Department of Commerce to carry out the Congressional mandate set forth in the 1984 amendments to the MMPA (P.L. 98-364). These meetings involved such subjects as the status of porpoise stocks in the Eastern Tropical Pacific (ETP) ocean, the feasibility of alternative fishing methods in the ETP ocean and the effectiveness of proposed import regulations. During this period I have also worked with the Porpoise Rescue Foundation and the Inter-American Tropical Tuna Commission (IATTC) in an effort to address matters raised by Congress during the 1984 oversight of the MMPA.

My testimony today will cover three important aspects of the 1984 MMPA amendments. They are:

The U.S. quota for marine mammals that may be taken incidental to U.S. purse seine tuna fishing operations in the ETP ocean.

The status of marine mammal population stocks in the ETP ocean, including the trends and abundance indices of these stocks since 1984.

The import regulations which require foreign purse seine fleets to lower their incidental take of marine mammals to rates comparable to that of the U.S. purse seine fleet.

QUOTA

In 1984 the MMPA was amended to establish for an "indefinite period", the annual quota of marine mammals that can be taken incidental to U.S. purse seine tuna fishing in the ETP ocean. The quota of 20,500 was initially established in 1981 after what has to have been the longest and most expensive administrative rulemaking procedure in the history of U.S. fisheries. Earlier quotas had been established for fixed time frames after similar administrative rulemaking procedures.

The 1984 Congressional oversight of the MMPA produced a consensus that something had to be done to eliminate the costly administrative rulemaking procedures. It was agreed that the U.S. tuna fleet was utilizing the best marine mammal safety technology and procedures that were available. It was also agreed that the incidental take of marine mammals by the U.S. tuna fleet had been reduced to levels that were commensurate with the best use of this techology and precedures.

In recommending that the quota be extended indefinitely this Committee in its report on the 1984 MMPA reauthorization stated, "The permit is being extended for several reasons, one of which is the fact that the industry has done a very commendable job of reducing porpoise mortality since the early 1970's." ". . . given the progress made by the tuna industry in reducing the incidental take of porpoise, little would be gained by going through another Department of Commerce permit hearing once the current permit expires." (Senate Report #98-450, p. 2, May 16, 1984)

Some opponents of the statutory quota argued that if the quota wasn't periodically "racheted down" the U.S. tuna fleet would no longer have an incentive to use its best effort to minimize the incidental mortality of marine mammals. This argument was first rejected by Congress in 1981 when the MMPA was amended to permit the U.S. tuna fleet to meet the "zero mortality" goal of the Act, "by a continuation of the application of the best marine mammal safety techniques and equipment that are economically and technologically practicable." (P.L. 97-58, October 9, 1981)

Congress rejected this argument again in 1984 when it established the statutory quota for an indefinite period". Not only was Congress convinced that the U.S. tuna fleet was using it best efforts to minimize the incidential take of marine mammals, they also realized that any quota would have to be flexible enough to account for the rapidly changing dynamics in the tuna fishery of the ETP ocean. Forces such as climatic conditions, interspecific dependencies, vessel logistics and political constraints can annually affect the incidential take of marine mammals by the U.S. tuna fleet.

We have been informed that some critics of the 1984 statutory quota believe that it should be reviewed because they claim there are fewer U.S purse seine vessels currently operating in the ETP ocean than in 1984. We are told that these same parties argue that the U.S. harvest of tuna from this fishery has also decreased since 1984.

Neither of these claims is true. At the time that Congress considered the 1984 amendments to the MMPA, there were thirty-four (34) U.S. purse seine vessels certified by the Department of Commerce to participate in the subject fishery. In 1987 there were also thirty-four (34) U.S. purse seine vessels certified to participate in this fishery.

In 1984 the certificated U.S. fleet of thirty-four (34) purse seine vessels harvested 59,400 tons of yellowfin tuna from the subject fishery. In 1987 the U.S. fleet of thirty-four (34) purse seine vessels harvested 82,200 tons of yellowfin tuna from the same fishery. This substantial increase in harvest from 1984 to 1987 illustrates the dynamic nature of the ETP ocean tuna fishery.

In 1984 this Committee carefully examined what effect the permanent quota might have on future marine mammal population stocks. The Committee report on the 1984 MMPA reauthorization recommended that the Department of Commerce conduct an ongoing marine mammal population survey. The report went on to state, "This section directs the Secretary to 'take such action as is necessary' in the event that this research shows that tuna fishing is having a 'significant adverse effect' on these marine mammal stocks." Significant adverse effect was defined as, ". . . a situation in which the incidental take of marine mammals by the tuna industry is a direct cause of a continuing overall decline in the population of these stocks." The report was stated, "Population declines due to natural causes would not be sufficient grounds for the alteration of quotas or fishing practices." (Senate Report 98-450, p. 8, May 16, 1984)

The 1984 quota was based on the assumption that the U.S. tuna fleet would continue the application of the best marine mammal safety techniques and equipment that are economically and technologically practicable. Clearly, the record of the U.S. tuna fleet in 1987 demonstrates that this is the case. With a record 95 percent of the U.S. tuna fleets fishing days observed by Federal authorities, the incidental take was documented to be 31.7 percent below the MMPA quota, the take per ton of tuna caught was .17, the lowest in history, and the percentage of marine mammals released safely was 99.34 percent.

STATUS OF STOCKS

A major issue before Congress in its 1984 review of the MMPA was the continuing controversy over the reliability of data and assumptions used in the calculation of optimum sustainable population (OSP). Prior to 1984, administrative rulemaking procedures required a finding of OSP for each marine mammal population stock of the ETP ocean tuna fishery before quotas could be established for the U.S. tuna fleet. Finding an OSP level requires the ability to compare a current population size with a pre-exploitation population size. This proved virtually impossible for the marine mammal population stocks of the ETP ocean because of the paucity of data on these stocks in the early years of the fishery.

In 1984, after listening to the testimony of government scientists charged with the responsibility of calculating the OSP levels of marine mammal population stocks in the ETP ocean, the House Merchant Marine and Fisheries Committee reported, ". . . there are continuing disputes about the validity of data and assumptions used in calculations of present and historical stock size necessary under current permitting procedures." "These (sic) dispute precipitated extensive legal and administrative proceedings over the issuance of the general permit for incidental take, and it appears likely that similar disputes would again arise in the issuance of future permits." The Committee report concluded by stating, "In essence, it has become apparent that the available data base is inadequate to support the calculations necessary for this method to be an effective management tool." (House of Representatives Report #98-758, p. 5, May 15, 1984)

In 1984, both the House and Senate decided that a new and better approach should be followed to determine the status of marine mammal population stocks in the ETP ocean. They therefore directed the Department of Commerce to, "undertake a scientific research program to monitor for at least 5 consecutive years and periodically as necessary thereafter, the indices of abundance and trends of marine mammal population stocks which are incidentally taken in the course of commercial purse seine fishing for yellowfin tuna in the eastern tropical Pacific Ocean". (P.L. 98-364, July 17, 1984)

We understand that the Department of Commerce has not been able to meet its intended schedule for this research program. We have been advised that funding constraints and confusion over program objectives may delay completion of the initial five year program for some time. We hope that this program can be completed as we believe that data on marine mammal population trends and abundance indices are far more reliable than futile efforts to estimate present and historical population sizes.

Currently, the best estimate of the marine mammal population stock sizes in the ETP ocean tuna fishery are set forth in the November 1987, Environmental Assessment of the Modification to the Marine Mammal Regulations, published by the Department of Commerce. (See Table 3 attached hereto.) This table demonstrates that no marine mammal population stock in the ETP ocean is threatened, endangered or legally depleted. In fact, the table projects that each population stock will remain well over the illusory OSP level through 1990.

IMPORT REGULATIONS

The U.S. tuna industry believes that the import regulations of March 18, 1988 were long overdue. We have consistently asserted the need to examine the incidental take of marine mammals by foreign purse seine vessels operating in the ETP ocean tuna fishery. As far back as 1976 we advocated that the tuna/marine mammal issue should be approached regionally, not in isolation by the United States.

We supported the 1984 amendment to the MMPA which directed the Department of Commerce to address this matter through the promulgation of import regulations. We agreed that nations desiring to import tuna products into the United States from the ETP tuna fishery should be required to meet U.S. marine mammal safety standards. We also agreed that importing nations should offer reliable proof that their purse seine vessels which operate in the subject fishery have reduced the incidental take of marine mammals to a rate comparable to that of the U.S. tuna fleet.

After enactment of the 1984 amendment, we worked with other interested parties and the Department of Commerce to devise import regulations that would be effective in reducing the marine mammal mortality attributed to the foreign tuna vessels. We cooperated with the IATTC in efforts to encourage foreign nations with tuna vessels operating in the ETP ocean to join the IATTC tuna/porpoise interaction program.

It is encouraging that in 1987, for the first time, all of the foreign nations with active purse seine fleets in the ETP ocean tuna fishery participated in the IATTC tuna/porpoise interaction program. Equally encouraging in 1987, was the precipitous drop in the estimated incidental take of marine mammals by foreign tuna vessels as compared to 1986.

We share the concern of other interested parties over the fact that implementation of the import regulations was delayed for such an excessive period. We recognize however, the difficulty in promulgating import regulations that will effectively reduce the incidental take of marine mammals by foreign tuna vessels, when these vessels have readily available alternative markets if they choose to ignore U.S. law.

We believe that foreign governments will, if encouraged, continue to work through the IATTC in order to meet the standards set by the March 18, 1988 import regulations. It is important that we show these nations that there is predictability and consistency in the approach that we are asking them to take. The IATTC should be consulted closely during the implementation period to insure full cooperation. If the objective is to effectively reduce the foreign incidental take of marine mammals the IATTC must be a major participant.

SUMMARY

The U.S. tuna fleet is continuing to use its best effort to limit the incidental take of marine mammals in the ETP ocean tuna fishery. The record of the U.S. tuna fleet in 1987 is proof of this.

No marine mammal population stock of the ETP ocean has experienced a "significant adverse effect" as a result of U.S. tuna fishing in this area since enactment of the 1984 amendments to the MMPA. In fact, all population stocks are expected to increase in size through 1990.

We continue to support the need to monitor the marine mammal population trends and abundance indices in the ETP ocean. We are certain that this is the only reliable method for determining the status of marine mammal population stocks in the future.

We support all efforts to effectively reduce the incidental take of marine mammals by foreign tuna vessels to levels that are comparable to that of the U.S. tuna fleet. We are prepared to work with this Committee, the Department of Commerce, and the IATTC to reach this objective.

The U.S. tuna fleet has experienced the loss of life and serious injury in efforts by crewmembers to minimize the incidental take of marine mammals associated with U.S. tuna fishing operations. The fleet has not circumvented U.S. marine mammal laws and regulations by transferring vessels to foreign registry, as one national television network recently claimed. (See my letter to ABC News attached.) They have remained under U.S. registry, fought for what they believed was right, and accepted the challenges that were presented to them.

Objectively viewed, the record of the U.S. tuna fleet in reducing the incidental take of marine mammals since enactment of the MMPA has been a success story. In fact, it was this record that led Congress to conclude in 1984 that foreign tuna fleets should be required to meet the same high standard set by the U.S. tuna fleet if they intended to export tuna products to the United States. We agree.

TABLE 3.—ESTIMATED 1979 AND FUTURE POPULATION LEVELS

Species/stock management unit	Estimated 1979 population	1979 status [1]	Adjusted 1979 population [3]	Adjusted 1979 status [1]	Projected 1990 status [2]
Spotted dolphin:					
Northern offshore	3,150,000	0.63	6,115,000	0.85	.92
Southern offshore	638,700	.95			.93
Coastal	193,200	.42	414,600	.76	.89
Spinner dolphin:					
Eastern	418,700	.27	918,800	.55	.71
Northern whitebelly	486,600	.78			.83
Southern whitebelly	264,900	.90			.90
Common dolphin:					
Northern tropical	216,900	.97			.94
Central tropical	848,400	.89			.94
Southern tropical	477,100	1.00			.99
Striped dolphin:					
Northern tropical	50,600	1.00			.98
Central tropical	213,300	.99			1.00
Southern tropical	483,000	1.00			1.00

[1] Proportion of pre-exploited stock size.

[2] Projected from adjusted population for northern offshore spotted, coastal spotted, and eastern spinner dolphin and from estimated 1979 population for all other populations; includes assessment for equal levels of U.S. and non-U.S. porpoise mortality; incorporates actual 1980–84 mortality; assumes 1985–89 mortality will occur in same proportion as 1979–84 mortality by species, and that total mortality will equal quota level each year 1985–89.

[3] Adjusted in accordance with court directive only for northern offshore spotted, coastal spotted, and eastern spinner due to question about status of population; other populations were and continue to be healthy and adjustments were not of significance at this time.

United States Tuna Foundation,
Washington, DC, March 24, 1988.

Mr. David Burke,
Executive Vice President, ABC News,
New York, NY.

Dear Mr. Burke: As General Counsel to the U.S. Tuna Foundation for the past ten years, I have represented the U.S. tuna industry on all matters pertaining to the Marine Mammal Protection Act (MMPA). I was shocked by many of the comments that were made during the course of your tuna/dolphin segment of ABC World News Tonight, March 15, 1988.

Your entire presentation appeared to be carefully structured to disparage the reputation of the U.S. tuna industry. You ignored the fact that the U.S tuna industry has been credited with developing the technology and procedures that have led to the significant reduction in marine mammal mortalities incidental to U.S. purse seine operations. While you mentioned that the U.S. tuna fleet operates under a quota system you failed to note that the quotas were based on sound conservation principles.

You made no attempt to point out that the subject vessel in your story was of foreign registry. You erroneously implied that the scenes depicted were commonplace when you must have known that they were an extreme departure from the thousands of normal purse seine sets that have been documented over the years by U.S. and international observors.

Your most egregious error, however, was the outrageous accusation that in order to circumvent U.S. marine mammal regulations, "about seventy boats have been deliberately put under foreign registry." It is incomprehensible that you could make such a false statement.

You compounded your error by creating the false impression that this phantom fleet of seventy boats was currently responsibile for scenes such as those being depicted during the course of your program. How else can your comments be interpreted that, "They can operate beyond American control and do whatever they want to do" and, "No one knows what the actual dolphin kill is, but as it happens day by day, this is what it looks like."

No U.S. tuna vessel has transferred to foreign registry to circumvent U.S. regulations pertaining to marine mammals. To the contrary, the U.S tuna industry has consistently maintained that foreign tuna fleets should be expected to meet the same standards as the U.S. fleet.

Congress specifically addressed this matter when it reauthorized the MMPA in 1984. It directed the Department of Commerce to promulgate regulations that would ban imports of tuna products formations whose tuna fleets failed to reduce their incidental take of marine mammals to rates comparable to that of the U.S. fleet. In stark contrast to the false impression created by your program, the U.S tuna fleet was used as a model for foreign tuna fleets to emulate.

Shortly after the 1984 Congressional mandate, the U.S. tuna industry and other interested parties began working with the Department of Commerce to develop effective import regulations. After numerous discussions, reviews and bureaucratic delays interim import regulations were issued on March 18, 1988.

You have done a serious injustice to the U.S. tuna industry by making false statements and then using these statements to create unfair and inflammatory inferences. The seriousness of your conduct cannot be exaggerated as can be seen by the instigative advertisement that appears in the New York Times two days after your March 15, 1988 program (enclosed). It appears that the advertisement was carefully timed to coincide with the sensationalism of your approach to what is a complex and emotional issue.

In a media conscious society such as ours, national television networks have an enormous power to influence public thought and perception. There is a clear abuse of this power when it is used with total disregard for fairness or accuracy. ABC World News was neither fair nor accurate in its portrayal of the U.S. tuna industry.

In the interests of honest and responsible journalism you owe the U.S. tuna industry an apology and a retraction. Anything less than this is unacceptable.

DAVID G. BURNEY, *General Counsel.*

Enclosure.

QUESTIONS OF SENATOR KERRY AND THE ANSWERS

1. Have there been any efforts to assess the impact of import restrictions on: (a) U.S. canneries, and (b) U.S. fishermen? If so, what were the conclusions?

YES. There is a National Marine Fisheries Service document entitled **ENVIRONMENTAL ASSESSMENT ON THE MODIFICATION TO THE MARINE MAMMAL REGULATIONS REGARDING THE IMPORTATION OF YELLOWFIN TUNA CAUGHT WITH PURSE SEINES IN THE EASTERN TROPICAL PACIFIC OCEAN** (November 1987). This document was circulated as a supplement to the proposed changes to Regulations Governing the Importation of Tuna Taken in Association with Marine Mammals (March 15, 1988).

The Assessment Report concluded that import restrictions of yellowfin tuna could result in:

- A shortage of raw product or increased price of raw product to U.S. processors.

- Loss of considerable investment of time and capital that the U.S. processors have extended developing shipping and processing centers in eastern tropical Pacific countries.

- A serious adverse impact on local communities in Puerto Rico where U.S. processors maintain five tuna canning facilities.

- Possible short term benefit to the U.S. tuna fishermen through higher ex-vessel prices and reactivation of inactive U.S. vessels. Note: There are presently no inactive vessels in the United States eastern tropical Pacific fleet.

Attached are the complete report conclusions with pertinent areas highlighted for easy reference.

2. U.S. fishermen reportedly release almost 99% of the dolphins captured. A large percentage of the remaining deaths are attributed to disaster sets which are often unavoidable due to shifting environmental conditions or gear malfunctions.

- Are attempts under way to develop techniques, gear or research which address the problem of disaster sets?

- Are disaster sets inevitable? Please explain.

Attached is a Porpoise Rescue Foundation table summarizing the mortality by kill/set categories for 4,116 observed sets capturing porpoise in 1987 by the U.S. fleet. The table reveals that 60 percent of the sets had zero mortality and sets with a kill of 5 porpoise or less accounted for 89 percent of the total sets. In contrast, disaster sets with more than 50 mortalities represented less than 1 percent of the sets capturing porpoise but accounted for almost 34 percent of the total observed mortality.

Analysis of these disaster sets reveal they result from one or more of the following: major equipment malfunctions, strong currents (often subsurface currents) and resulting net collapses, and adverse porpoise behavior (resisting attempts to back them out).

In conjunction with the Expert Skippers' Panel, PRF reviews all disaster sets through an in-depth analysis of the observer's notes and the skipper's comments and makes recommendations to the skipper or managing owner. Recommendations may include:

- The need for improved maintenance on a vessel (particularly older seiners) to reduce major equipment failures.

- Trial sets to reveal net problems not discernable from the observer's notes.

- Avoiding or minimizing porpoise sets in areas of strong currents.

- Extra caution is needed on sets south of the equator where porpoise are set on infrequently and may exhibit unusual behavior when captured.

Despite all efforts, a few disaster sets still occur (35 out of 4,116 sets in 1987) and probably always will. Even with good equipment maintenance, there is no way to predict when a critical hydraulic line will burst, a cable will snap or the skiff engine will quit.

Sets can be made under ideal conditions but the vessel and net can subsequently drift into an area with strong currents and/or large swells or be hit with violent local squalls that come and go frequently in tropical oceans. Subsurface currents are almost impossible to predict before a set is made.

3. The gear and operating practices which are currently used to protect porpoises were developed by the U.S. industry several years ago. I understand that this gear has changed very little in the intervening years.

- Please describe ongoing efforts by the industry to develop new gear or fishing methods to improve porpoise safety.

- Would it be useful to convene an expert panel of engineers to study the gear technology and develop improvements?

- Do you think that the industry would be interested in such a study?

Although there is not a formal gear development program, skippers continue to refine their methods and skills to lower mortality. For example, one veteran U.S. captain has been experimenting with a special method of towing on the net with a 115 hp speedboat to prevent canopies and net collapses from occurring. Another U.S. captain averaged an outstanding 89 percent zero mortality sets for three observed trips in 1987. PRF plans to document on video tape the porpoise-saving techniques used by these skippers for dissemination to the rest of the fleet.

One bright spot is the experimental light program initiated several years ago by Inter-American Tropical Tuna Commission (IATTC) and recently expanded by the industry. The IATTC and the PRF loaned high powered lights for use on sundown sets resulting in NMFS making the lights a mandatory gear requirement as of July 1, 1986. Since then, the American Tunaboat Association purchased several additional lights to loan to skippers wishing to experiment with double lighting. IATTC has supplied many lights to foreign flag vessels for use on sundown sets.

The further development or refinement of purse seine gear to lower porpoise mortality encompasses more than just engineering. An intimate knowledge of porpoise and fish behavior is needed. It is a quantum leap from a small-scale model net tested in a pool or a simulated net tested by a computer to a full-scale net in the open ocean with 100+ tons of large yellowfin tuna and hundreds of porpoise. Any panel of engineers would need considerable input from veteran tuna skippers and tunaboat chief engineers.

The tuna industry has a keen interest in any studies that might result in lower porpoise mortality and will be a willing participant if adequate funding is available.

4. It seems to me that the skill and experience represented by the Expert Skippers' Panel is a valuable resource which should be fully utilized in addressing the tuna-porpoise issue.

- How does the Panel work at the present time to monitor and reduce porpoise mortality in the U.S. fleet?

- Do you think that an international panel which is patterned after the Expert Skippers Panel could be effective in addressing the international problem?

- What do you anticipate as the role of the Panel in the possible development of performance standards by the industry?

The Expert Skippers' Panel (ESP) presently operates as follows.

1. Periodic general meetings are held throughout the year to review the overall U.S. fleet porpoise fishing performance and make recommendations to improve performance. The general meetings provide a valuable forum for skippers to exchange ideas about techniques that reduce mortality.

2. Counseling sessions are held as needed for individual skippers (certificated operators) experiencing high mortality rates. Participants at these sessions normally include one or two expert skippers, representatives from the ATA (General Permit holder) and PRF, and of course, the captain being counseled (vessel managers may also attend if they wish).

Copies of the observer's notes for problem sets and disaster sets are reviewed by the expert skippers, with particular attention given to the observer's diagrams on net configuration and presence of canopies or net collapses before, during or after backdown. Other important considerations are area and type of porpoise captured, currents, equipment malfunctions, hand-rescue procedures, etc. The ESP may recommend a trial set if the problem can't be identified by analysis of the observer's notes and diagrams.

PRF supplies the ESP with all the pertinent data needed for evaluation of fleet and individual skipper performance. PRF performs an in-depth analysis of all problem sets and presents the results to the ESP. Additionally, PRF compiles a complete performance profile for all U.S. certificated skippers comparing their averages for kill/ton, kill/set and percent zero mortality sets with the fleet's averages. This information flow is critical for the ESP to function effectively.

An international panel patterned after the Expert Skippers' Panel could be effective in addressing the international fleet porpoise mortality. Now that the ETP tuna/porpoise fishery is truly international, it is critically important that every captain (U.S. and non-U.S.) know what his performance record is and have access to professional counseling from a peer group if needed. Personal communication with the IATTC revealed they are already exploring the idea of skippers panels at the request of their member nations. If requested, the U.S. could possibly serve in an advisory role to help individual countries set up their own panels. Through its observed trip database, IATTC could provide each panel with the information about individual skipper performance, problem sets, gear problems, etc., as PRF presently does for the U.S. ESP.

The exact position of the ESP or the industry in general on the development of skipper performance standards is not clear. Some feel it is not possible to develop fair and objective standards that can be applied in all cases. Each fishing trip and the circumstances causing high mortality are unique and require individual analysis. Others feel more formal standards could be adopted but action should only be taken when requested by the ESP. The ultimate performance standards are already imposed by law on the U.S. fleet through the quota system.

Senator **Kerry**. Thank you very much, Mr. Burney.

Mr. Felando.

STATEMENT OF AUGUST FELANDO, PRESIDENT, AMERICAN TUNABOAT ASSOCIATION, ACCOMPANIED BY JAMES P. WALSH, COUNSEL

Mr. **Felando**. I am August Felando. I am the President of the American Tunaboat Association. I have managed the ATA since November 1960.

To my right is James Walsh, Bud Walsh, who represents us.

I want to touch on a couple of points, and that is with respect to the background of the ATA. It was organized in 1921. The membership is composed exclusively of U.S. citizens that own and operate commercial fishing vessels.

At the present time and since about 1965, the members own exclusively what is called tuna purse-seiners. Prior to 1958, the technique that was used by U.S. tuna fishermen were what we called bait boats. Nets were not used.

Now, the ATA has been the general permit holder since 1974. During that period, from 1974 to 1984 we were issued general permits by the National Marine Fisheries Service, and since 1984 we are operating under the existing laws on an indefinite extension.

The U.S. tuna fleet operates primarily in the Pacific Ocean. Our traditional area is what we call the eastern Pacific. That is one of the most important tuna fishing grounds in the area. Basically, the U.S. processors pack about 26 million cases of tuna. That was the production last year in 1987.

The production of tuna in the eastern Pacific last year was about 378,000 tons. That is the equivalent of about 18.9 million cases. It is a very important part of the world of tuna.

The yellowfin tuna resource, the catch in 1986 worldwide was about 700,000 tons. The yellowfin produced in the eastern Pacific is about 290,000 tons. Therefore, I want to make the point it is extremely important to us.

The general permit that is issued to us, the only place in the world where we can fish tuna associated with porpoise, is in the eastern Pacific.

At the present time, Senator Breaux is correct. We have 35 vessels that have been issued certificates of inclusion by the National Marine Fisheries Service. In addition, we have 70 operators or captains that have been issued certificates of inclusion by the National Marine Fisheries Service. Although we have a general permit, the certificates of inclusion must be issued by the National Marine Fisheries Service.

I will not take the time to detail the many procedures, the many gear requirements that are required under the law and the regulations for us to catch tuna associated with porpoise.

Our position on the request made by the committee is that we recommend no changes in the Marine Mammal Protection Act, and we strongly support increased support to the Inter-American Tropical Tuna Commission with respect to the problem of foreign mortality.

We also support, finally, the effort of the National Marine Fisheries Service to bring in Federal regulations. It has taken some time, as we have noted here, to implement import regulations, and we plan to comment on those regulations as appropriate.

The committee asked me just to give an overview about the tuna industry worldwide and the place of the United States, and I would like to point out to this committee that the number one market for tuna in the world is Japan. Now, the number one market for canned tuna in the world is the United States, the original market. The product canned tuna was developed in California in 1903.

However, the second and growing market for canned tuna is the EEC, the European market. So there is another point that people should recognize. There is an increasing demand for tuna, whether it be in the can or in the fresh market, by other countries as well. Therefore, we no longer have the dominance that we had with respect to the tuna market.

I would like to come up with some statistics with the time that I have here just to point out the importance of purse-seining with respect to canned tuna. About 95 to 96 percent of all the tuna that is received by the U.S. canners come from purse-seining. About 42 percent of all the receipts in 1987 that came from the U.S. canners came from the eastern tropical Pacific.

Now, the U.S. share of tuna in the eastern tropic Pacific, for instance the canners' share, is only 48 percent of that 378,000 tons. It has been on the decline. So also is the U.S. fleet share. We are no longer the dominant fishing nation in the eastern tropical Pacific.

Now, I would just like to comment briefly on the performance of the U.S. fleet with respect to the reduction of porpoise mortality. At the ATA prior to the enactment of the Marine Mammal Protection Act back in 1970, we created what we called an expert skipper panel, and it really has a lot of relevance to the situation today.

We found out that we had some skippers because of the competitiveness who had developed tremendous skills in porpoise setting, setting on tuna and releasing the porpoise.

We found out that it was important to transfer that technology, that skill, to the other skippers in order to help out everybody. So we formed this group.

At the same time, we recognize that the best way to do this was to review what happened after a set. This transfer of technology applies today.

Now, this is the same problem that the foreign vessels have. Now, how do you transfer the technology, the skill that has developed here in the last 30 years by the U.S. fleet to the foreign fleets? In this respect, we have assisted the Inter-American Tropical Tuna Commission in conducting experiments.

We think that we have a good record in being able to provide this information to the Commission, and we think this is the best way of assisting, at least the way that we can assist in reducing the overall problem, because the problem is no different. We had the problem within the U.S. fleet. We see no reason why we should not assist the other tuna fishermen in our area.

Now, with respect to the reduction of tuna-porpoise mortality and the record, the data base that is available, in the last 10 years over 20,000 of our sets have been observed by government agents aboard our vessels. All of this data is available. I found at this particular hearing that the results from 1987 apparently had not been made by the National Marine Fisheries Service to this committee, but of the 4,100 sets that were observed last year by the government agents, which is tantamount to the whole fishery, we had 124 trips. 123 trips were observed.

Of the 4,100 sets, 60 percent, in other words roughly 2,400 sets, resulted in zero mortality. Another 510 sets resulted in only one mortality. You are dealing with sets that range involving schools of porpoise from 350 to 500 animals.

Actually, if you look through the range of zero sets, one morality up to six, you find out that 91 percent of our sets involve that range from zero to six mortalities.

We do have sets that create a problem, and I will conclude, Senator. We had 13 out of 4,100 sets that resulted in morality in excess of 100 animals. I have personally read every one of the files. We obtained the observers' reports.

Through the expert skipper panel, we bring in a skipper if he has problems with a particular set; if it was a high kill. We talk to them. The captains talk to that individual to try to solve that problem. We think we have a handle on reducing porpoise mortality, but do not ask us for perfection.

Our record for the last four years, over 99 percent of the porpoise that are encircled or captured are released free. Now, this comes from the government data, not our data.

So we think we are doing a tremendous job, and I am very pleased that this committee has recognized that. I thank them. I know that your associates are gone but I believe they will read what goes on here.

[The statement follows:]

STATEMENT OF AUGUST FELANDO, REPRESENTING THE AMERICAN TUNABOAT ASSOCIATION

Mr. Chairman, Members of the Committee, my name is August Felando, President of the American Tunaboat Association ("ATA"). With me is James Walsh, ATA's Washington Counsel. On behalf of the ATA, we are pleased to appear before you today to discuss the Marine Mammal Protection Act (MMPA).

The ATA is a non-profit fishery cooperative, based in San Diego, California, that represents nearly all U.S.-flag long-distance tuna fishing vessels. The ATA holds a General Permit to take marine mammals incidental to commercial fishing for yellowfin tuna in the Eastern Tropical Pacific Ocean (ETP). That General Permit was statutorily extended by Pub. L. 98-364 (the 1984 Amendments to the MMPA) and continues in effect subject to certain statutory criteria.

Our testimony today will address (1) an overview of the U.S. and foreign tuna industry; (2) the experience of our tuna fleet since 1984; (3) the performance of the foreign tuna fleet; and (4) comments on future action relating to the tuna/porpoise issue.

1. AN OVERVIEW OF THE TUNA INDUSTRY

Senator Ernest F. Hollings' invitation letter of March 30. We suggest that the best recent overview of the U.S. tuna industry requested that we provide an overview of the U.S. and foreign tuna industries is that contained in a report by the International Trade Commission (ITC) entitled "Competitive Conditions in the U.S. Tuna Industry" dated October, 1986. This report was prepared to analyze the trade difficulties of the U.S. industry during the period 1979–1986.

During this period of trade difficulty, the ITC documented the substantial losses to U.S. vessel owners, which resulted in distressed sales of vessels that were not operating profitably. Most of these sales were to foreign citizens. There have been charges that sales of U.S. vessels to foreign-flag during this period took place to avoid U.S. porpoise-protection regulations under the MMPA. However, the ITC report is clear evidence that the reason for such sales was exclusively economic: U.S. vessels were going out of business.

The more important statistics for the purpose of this hearing today are those relating to tuna fishing in the EPT, the area where porpoises are taken incidental to tuna fishing operations that come under the jurisdiction of the Inter-American Tropical Tuna Commission (IATTC). The IATTC is the best source of data with regard to the foreign tuna fishing activity in the area and we defer to Dr. James Joseph of the IATTC on questions about the foreign fleet.

Attached [1] hereto is detailed statistical information about the world tuna market, the U.S. fishing fleet, production for 1987, and a summary of tuna landings for the ETP.

The U.S. tuna fleet is split roughly 50–50 between those vessels operating in the Western Pacific and those operating in the ETP, the more traditional fishing grounds. Only in the ETP are yellowfin tuna caught in association with porpoise. Nearly all the fish caught by our fleet in the ETP is delivered to the five U.S. tuna canneries operating in Puerto Rico.

2. PERFORMANCE OF THE U.S. FLEET

Under MMPA regulations, each tuna vessel must have a Certificate of Inclusion under the ATA General Permit in order to catch tuna in association with porpoise. Thus, we speak of "certificated vessels"—i.e. those authorized to "take" marine mammals. In addition, every operator of every certificated vessel must have an operator's Certificate of Inclusion. Finally, every certificated vessel, among other requirements, must (1) be equipped with the proper porpoise protection equipment, such as the special Medina panel net; (2) engage in the backdown procedure to release porpoises from the net; (3) take other steps necessary to minimize harm to the animals; and (4) accept a government observer when assigned by the National Marine Fisheries Service (NMFS).

The number of certificated vessels operating in the ETP since 1984 were the following: 1984–34; 1985–36; 1986–34; and 1987–34. The number of U.S. vessels presently operating in the ETP is the same as last year.

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[1] The attachments were not reproducible.

The following represents the historical record regarding porpoise mortality quotas applicable to the U.S. tuna fleet since the period 1984-1987. The source of this information is the NMFS.

Year	Quota	Estimated mortality
1984	20,500	17,732
1985	20,500	19,205
1986	20,500	20,697
1987	20,500	13,992

ATA, as the General Permit holder, works with the Porpoise Rescue Foundation (PRF) to monitor and reduce porpose mortality in the U.S. fleet, utilizing the experience and skills of captains who are members of an ATA Expert Skippers Panel.

PRF obtains information from NMFS on a weekly basis from observer radio reports. If a radio report indicates that a vessel has a high mortality event, efforts are made to contact the captain at sea to learn more about the radio report. This effort allows the ATA/PRF to work on a real-time basis with the captain's problem. Following an analysis of the trip data compiled by the observer, PRF will contact the ATA and report on problem trips.

PRF conducts an information program with the captains by being in attendance at observer placements made in San Diego. At such meetings, the observer and representative provides the captain with current porpoise mortality estimates, with the captain's performance statistics for 1987 and advisories concerning problems causing high mortality. Each week PRF distributes a current mortality estimate for the U.S. fleet with statistical comparisons. In this way, the fleet operators know how the current results compare with mortality estimates in 1987, 1986 and 1985.

A review of the 1987 porpoise mortality record is as follows:

32 percent under quota
95 percent government observer coverage
4116 observed sets on tuna/porpoise schools with
—60 percent recorded zero mortality
—12 percent recorded one mortality
—7 percent recorded two mortalities
99.34 percent of captured porpoise released alive

In 1984, Congress recognized the success of the U.S. tuna fleet in reducing porpoise mortality. The report of the House Merchant Marine and Fisheries Committee on Pub. L. 98-364 stated:

> Perhaps the most visible success of the Marine Mammal Protection Act has been the dramatic reduction in U.S. take of porpoise incidental to purse seine fishing operations for yellowfin tuna in the eastern tropical Pacific Ocean.

After reviewing the status of porpoise stocks, Congress that year authorized NMFS to forgo the usual administrative proceeding for setting an annual limit on the number that could be safely taken without harming the animal's optimum sustainable population (the "quota"). Congress set this quota in the 1984 law at 20,500 for all porpoises, with individual subquotas for coastal spotted dolphins (250) and eastern spinner dolphins (2,750). According to the House Report:

> This level of take is not viewed by scientists for NMFS, the tuna industry, or major environmental groups as likely to significantly adversely affect the porpoise stocks in question.

During this four year period, tuna fishing trips on which observers were aboard U.S. vessels rose from 29% in 1984, to 47% and 44% in 1985 and 1986, and to 95% in 1987. Based on NMFS observer data, the high level of success in the U.S. fleet's efforts to protect these animals is reflected in the percentage of porpoises released from tuna nets each year—1984: 99.23%; 1985: 99.06%; 1986: 98.98%; and 1987: 99.34% (preliminary).

In 1984, NMFS reported that, in the five years since 1979, all porpoise stocks were increasing in size. (*See* Statement of William Gordon, Director of NMFS, on March 15, 1984 before the House Committee on Merchant Marine and Fisheries). In an Environmental Assessment prepared by NMFS in 1987, all stocks were projected in 1990 to be well within their optimum sustainable population under the MMPA standards and the statutory quota.

3. PERFORMANCE OF THE FOREIGN FLEET

We do not have in-depth knowledge of how well foreign vessels operating in the ETP have performed in protecting porpoises. However, in the past, U.S. tuna vessels were subject to stringent marine mammal controls but our foreign competitors were not. Accordingly, we supported the 1984 MMPA amendments that toughened import controls on foreign-caught yellowfin taken in association with porpoises. The recently released NMFS regulations implementing those 1984 amendments are headed in the direction of assuring realistic equivalency in the foreign effort.

ATA also recognizes the need for an international approach to the problem, just as we have pushed for international management of the highly migratory tunas. Thus, we support the efforts of Dr. Joseph in fostering cooperation in both porpoise protection and tuna management.

Before leaving this subject, Mr. Chairman, we wish to express our deep resentment toward those who are attempting to downgrade the documented successes of our fleet by associating us with the film of a foreign vessel shown here today. The thoughtlessness and incompetence of that foreign vessel is plain to all. But it is grossly unfair to suggest that the actions, on that foreign vessel are typical of our fleet's actions, especially in view of the government monitoring and documentation of the U.S. tuna fleet's efforts to reduce porpoise mortality.

4. CONCLUSION

In 1984, Congress directed NMFS to begin a new research program on the status of marine mammal stocks in the ETP. NMFS was authorized to "take such action as is necessary" if this research indicates that tuna fishing under the ATA General Permit is having a significant adverse effect on a marine mammal stock. The new monitoring program is not yet complete. We submit that NOAA has sufficient authority to take any action needed in light of any new research results.

The tuna/porpoise regulatory program mandated by Congress continues in place and NMFS is closely monitoring the U.S. fleet. We see no need for further amendments to the MMPA in connection with our fleet's operations.

We recommend that support be given to the IATTC to address this issue on a multilateral basis. Only with the support of government officials of nations whose vessels fish in the ETP will the foreign fleet's record improve.

In summary, we believe that the record of the U.S. tuna fleet, as compiled by NMFS, speaks for itself. U.S. tuna vessels have achieved great success in protecting porpoises that are taken incidental to tuna fishing operations in the ETP. The equipment used by the fleet and the backdown procedure have proven to be highly effective, and the quota provides the ultimate protection to assure that the stocks are not severely harmed.

That concludes our prepared statement. I would be happy to answer any questions you may have.

[The following information was subsequently received for the record:]

QUESTIONS OF THE CHAIRMAN AND THE ANSWERS THERETO

1. Has the industry experimented with alternatives to setting on porpoise such as aggregating devices or on yellowfin tuna schools associated with floating debris.

ANSWER:

The U.S. tuna fleet discovered the association of tuna with floating debris early in the history of the fishery. We call such fishing "log" fishing. The Inter-American Tropical Tuna Commission (IATTC) is the best source for a listing of the many scientific reports made on the use of "floating debris" or logs by the U.S. Tuna fishermen. The use of anchored aggregating devices was pioneered in the Philippines. In 1980 and 1981, the IATTC conducted experiments with anchored rafts. The objective sought was to develop an economically attractive alternative to fishing tunas associated with porpoise. The experiment failed because the devices did not attract porpoise-associated tuna. At present the IATTC is conducting further experimentation with natural floating "logs" by tagging them. The purpose of this project is to monitor the movement of drifting objects in the eastern Pacific tuna fishing grounds and to study the association of tunas with these objects. The FAD (Floating Aggregating Devices) approach does not solve the problem of porpoise-associated tuna, it would only deal with the capture of small, immature yellowfin tuna. Large, mature tuna is associated with porpoise schools. To force the fishermen to fish on small, immature yellowfin tuna associated with aggregating devices could severely damage the yellowfin tuna conservation program by preventing the growth of yellowfin to age classes that increase reproduction and yield.

Two workshops have considered the subject of tuna aggregating devices as a technology to reduce porpoise mortality: U.S. Marine Mammal Commission's Workshop Meeting held in San Diego, May 27-29, 1981, and the NMFS Workshop held in San Diego, 2 April 1986.

2. How are tuna schools located in the Western Pacific?

ANSWER:

Bird Activity (feeding) is largely utilized to locate tuna/porpoise schools and other tuna schools in the eastern Pacific. Bird activity is also a cue in the western Pacific, along with the same cues used in the eastern Pacific to locate tunas associated with "logs" or floating debris or travelling schools of tuna, i.e. breezing, "black spots". Sonar equipment is more extensively used in the western Pacific than in the eastern Pacific. This is probably due to the deep thermocline usually prevalent in the western Pacific. Vessels in both areas utilize helicopters. More reliance on helicopters is found in the eastern Pacific than in the western Pacific.

3. Will entry of the South Pacific Tuna Treaty cause a diversion of U.S. tunaboats from the eastern Pacific into the western Pacific?

ANSWER:

Fishing conditions will control the movement of vessels from one area to another. We have no indication of any vessels moving from the eastern Pacific to the western Pacific because of the Treaty coming into force this summer. A passage of time will be required to evaluate the impact of this new event, however, based upon part history we remain convinced that fishing success is the controlling factor.

In the past few years, we have had some vessels leave the western Pacific and make a single trip on the tuna/porpoise fishery in the eastern Pacific.

4. How would such a change effect the annual mortality estimate of porpoises in the eastern Pacific?

ANSWER:

If fewer U.S. vessels operate in the eastern Pacific then fewer sets would be made in the eastern Pacific; therefore, one could speculate that the total annual mortality estimate of the U.S. Fleet would decline.

However, it is believed that foreign vessels could exploit more of the eastern Pacific tuna/porpoise fishery. Based on past history, this fact suggests that porpoise mortality by the international fleet would increase in the eastern Pacific.

5. What is the relationship between increased observer coverage and annual porpoise mortality estimates. In 1987, there was 95% observer coverage and annual mortality at 13,992 with the annual quota at 20,500. In 1986, there was 44% observer coverage and annual mortality at 20,696 with a quota closure date in October 1986. In 1983, there was 30% observer coverage and annual mortality at 8,513 and with the annual quota at 20,500.

ANSWER:

The annual mortality estimate made by the NMFS is based upon observed trip data. If total observed days equal total fleet days, then there exists no need for a mathematical estimate. If total observed days represent only a percentage of total fleet days, such as 95% in 1987, 44% in 1986 or 30% in 1983, then NMFS must utilize a shoreside computation to make an estimate of the unobserved mortality.

For the fishermen, risk of error in computing annual porpoise mortality relative to the statutory quota increases as the total observed days represents less than 100% of total fleet days. This is because an estimate is used by the NMFS on shore to determine unobserved mortality rather than the direct count made by the observers at sea.

1987 represents an opportunity to determine whether the formula used by NMFS for these many years is biased or correct, and in determining the most cost effective sample coverage, i.e. 50%, 40% or 30%. We have been informed that the NMFS will be conducting simulation studies to test the formula under different sampling schemes. 1987 represents a baseline direct count - the first year without a significant extrapolation. We hope that NMFS will use this data to answer the accuracy of the present formula.

Therefore, the observer data collected in 1987 represents an opportunity for the Secretary of Commerce to use the "best scientific evidence available" in determing annual incidental mortality under the general permit issued to the American Tunaboat Association. We believe that studies produced by the NMFS will be the best answer to the question posed. In our opinion, 1987 was neither a coincidence or proof for the need of 100% or 95% observer coverage. Another factor impacting the total annual porpoise mortality recorded for 1987, 1986 and 1983 relates to the number of porpoise sets as a percentage of all sets made by the U.S. Tuna Fleet. In 1983, the number of porpoise sets was 55% of all sets, in 1986, it was 94% and in 1987, it was 78%. This variability in the number of porpoise sets as a percentage of all fishing sets indicates that oceanographic or other environmental facts may impact the association of tuna with porpoise year to year.

Senator KERRY. They are coming back. Senator Wilson just had to step out for a moment, but he will be back momentarily.

Let me just say that I think the record of the industry clearly has shown good faith and tremendous accomplishment in terms of the reduction from where we were a number of years ago. If anything, your testimony about 4,100 sets of which a certain number have zero fatalities, your expert skippers process and so forth, just underscores that, what has been labeled as embarrassment here, is, I think, much worse than mere embarrassment. It is almost negligence of the worst order in terms of what has happened at our highest levels with respect to this issue internationally.

If we have this expertise, if we have been able to reduce porpoise deaths—and I think it has been done, and correct me if I am wrong, without such capital cost that it has injured the profitability of the industry. Is that accurate?

Mr. FELANDO. That is absolutely accurate.

Senator KERRY. So it is clear that we have developed something which a number of years ago we could have begun to enter into some kind of cooperative effort with other countries. It seems to me that your expert skippers and our State Department and our administration ought to be working together without holding up bans on tuna and other kinds of things. We ought to just go to people and say, hey, folks, this can be done, and to bring their level of expertise and knowledge up.

Now, is that feasible, or am I pipedreaming?

Mr. **Felando**. No, you are not pipedreaming. It is feasible. It can be done.

Senator **Kerry**. So the simple question is why have we not done it. Obviously, you are not the panel to answer that.

Mr. **Felando**. No.

Senator **Kerry**. It just seems to me to be pretty straightforward.

You have a film that you want to show us, and I think it is important for us to see this so I would like to move right to your film if we can.

Mr. **Burney**. I am not going to narrate the film. It was actually a film produced by the National Oceanic Atmospheric Administration. It was not a production, and it was not fake. What you will see is what a normal U.S. purse-seine set looks like and the effort that goes into protecting marine mammals.

Senator **Wilson**. Mr. Chairman, I want to thank you for this hearing. I have seen more film this morning than I ordinarily see in a year.

Senator **Kerry**. I do not know if they will get any academy awards, though.

Will it work this time? Are we set up? Great.

Is there a voiceover, or are you narrating?

[Film shown.]

Mr. **Burney**. I would just make two comments on the film just so that it is better understood.

What you saw in the film earlier was somebody throwing I think it was labeled as bombs into the net. What you see done in a normal purse-seine set is splashing from a raft. There is quite a contrast there.

Also, in the first video you had crewmembers standing around watching something, whereas in a normal purse-seine set you have people out in the water with the porpoise, and you have speedboats out there stopping canopies from occurring as they occurred in the first video.

It is important that the stark contrast be shown, because there is a right way, a wrong way, and then there is an irresponsible way. What we saw earlier is irresponsible. What you saw here is the way that it should be done, and hopefully we can transfer this procedure and technology to others, and they will act just as responsibly.

Senator **Kerry**. Does it in fact save you money if porpoises are not killed?

Mr. **Burney**. Absolutely.

Senator **Kerry**. Why?

Mr. **Burney**. Because efficiency in an operation is measured by the ability to get tuna on board the vessel and move on in search of more tuna.

When you have a disaster set as was depicted in the first video, I would hate to say how long they were there but they had to be there a long time. And for what? I think it was 10 fish. That is ridiculous.

One of the reasons that we use helicopters is you are able to get an overview of the porpoise schools to see whether there are fish below the surface. If you do not see fish, you move on so you do not have scenes like the one depicted in the first video. Even if you were 100 percent successful in releasing the porpoise, you would not set for 10 fish.

Senator KERRY. What has been the impact on the industry of the current requirements in terms of production costs?

Mr. FELANDO. Well, based on our record I would say that as a result of the research program that was conducted in 1972 to 1974, we learned more about our nets than at any time, I think, in the history of the business. We worked with the National Marine Fisheries Service at that time.

What I am saying is that by focusing on the tuna-porpoise problem, we gained a positive. We became more efficient. You have to say to yourself why is it that there are 34 U.S. flag vessels out there and last year we were the number one producer of tuna in the eastern tropical Pacific.

So in answer to your question, I do not think it was a cost to us. Really, in a way it was an advantage. Fortunately, I think with the people that we have, we turned what seemingly was a negative into a positive. So in answer to your question, looking back, to us it was all a gain. We became more efficient. We reduced our cost. We have to have a net.

The fishermen came up with the idea. Mr. Medina, Harold Medina in 1971 came up with the small mesh system. The backdown procedure came about as a result of a fisherman by the name of Anton Misetich in 1958.

What the National Marine Fisheries Service did with us by working with us in a positive way, it came up with the idea of using the raft, using the super apron. So in short, in my opinion, Senator, it was all a positive.

Senator KERRY. I am going to turn to Senator Wilson. We have another vote on, and I think rather than hold everybody, which would not make sense at this point, if he has any questions he wants to ask now, what we will do is leave the record open for any additional ones afterwards.

Senator WILSON. Mr. Chairman, you asked the question that I think was most pertinent to this panel, and that is the extent to which the kind of humane practices that are outlined in that film make sense for them economically; what incentive do they really have.

I am satisfied from Mr. Burney's answer and Mr. Felando's answer that not only has the industry pioneered the whole backdown procedure and the development of the Medina panel and the other devices that have been used to safeguard the porpoise but that it does make sense from an economic point of view.

From Mr. Felando's testimony, they are clearly in support of regulations for import restrictions. My question, I guess, is not to them but to the executive branch; that is, why are we compelled to wait until 1991.

I thank the panel.

Senator KERRY. Senator Wilson, thank you very much for your participation this morning.

I would like to thank all the members of the panel. I share Sen. Wilson's question. I think a goal of zero is a laudable goal. Sure, we would like to do that. You have achieved out of many of those sets the ability to have zero. Possibly as we research and do more things, we can perfect that further.

It just bothers me enormously that we have allowed this situation to drag on and to reach the point where, as Senator Wilson says, 1991 is the target for implementation. I would prefer to see that we reach out more affirmatively, proactaively, calmly, and frankly to other nations to bring them into this process. We could demonstrate how they can make more money, how they can in fact be more productive and efficient. At the same time, it would serve the interests not just of themselves but of all mankind and the generations to come.

It just makes sense. It is really sad. I do not know what people are doing. We have seen it in too many areas. It is really sad when something like this sits undone, that could be so positive, that could be so beneficial, and the wheels do not even seem to be turning.

So I appreciate your testimony today. I think it has all been very helpful to us to understand where we have to go with the reauthorization.

We are going to leave the record open, as I stated earlier, for the submission of written testimony and answers to questions, and we will also follow up as we said we would with other questions that have been raised here in terms of witnesses who were not here to answer them.

So we stand adjourned. Thank you.

[Whereupon, at 1:00 p.m. the hearing adjourned.]

MARINE MAMMAL PROTECTION ACT REAUTHORIZATION

THURSDAY, MAY 19, 1988

U.S. Senate,
National Ocean Policy Study,
Committee on Commerce, Science, and Transportation,
Washington, DC.

The subcommittee met at 9:40 a.m., in room SR-253, Russell Senate Office Building, Hon. John Breaux (chairman) presiding.

OPENING STATEMENT BY SENATOR BREAUX

Senator **Breaux**. The subcommittee will please come to order.

This morning the committee will receive testimony regarding the reauthorization of the Marine Mammal Protection Act. This landmark legislation was enacted in 1972 in response to the increasing popular sentiment and growing concern for the welfare of marine mammals.

The Act recognizes that marine mammals play an important role in marine ecosystems and that they are significant recreational and esthetic resources. The legislation also acknowledges the adverse impacts of human activities on some marine mammal populations and the need to restore those populations that have been depleted.

The Act is unique in that it confers protected status to a group of animals comprised of more than 100 species, based solely on their identification as marine mammals.

Probably the most fundamental provision of the MMPA is the establishment of a ban on the taking of marine mammals in any waters, state or Federal, subject to the jurisdiction of the United States.

The Act further contemplates that the objective of marine mammal management is to achieve and maintain the optimum sustainable population, or OSP, of such species—a population level generally expected to represent no less than 60 percent of the maximum level that can be supported by a healthy ecosystem.

Thus, as currently written, the Marine Mammal Protection Act represents one of the most conservative wildlife protection laws in the world.

Notwithstanding the ban on the taking of marine mammals, the MMPA does provide for several limited exceptions which recognize that a carefully managed take of marine mammals is in some cases desirable and in some other cases both necessary and non-detrimental to the populations. Those limited exceptions which allow marine mammal takes include:

Takes for the purposes of legitimate scientific research;

Takes for the purpose of public display and education;

Takes by Alaskan Natives for subsistence purposes;

Negligible incidental takes by non-fishery related activities, such as offshore oil and gas activities;

And finally, incidental takes by commercial fishermen.

The primary focus of today's hearing will be the last of these exceptions, the incidental take of marine mammals by our nation's commercial fisheries, particularly those of our Pacific and Bering Sea coasts.

Currently, two types of exceptions are available for the incidental take of marine mammals by commercial fishermen. The first is by obtaining a "general permit," which can be obtained for fisheries that take relatively large or significant numbers of marine mammals.

Issuance of a general permit by the National Marine Fisheries Service is predicated on the determination of the optimum sustainable population or OSP for the marine mammal species to be taken, and on the finding that the anticipated incidental take of marine mammals "will not be to the disadvantage of the species."

A number of general permits have been issued to both domestic and foreign fisheries over the years. However, questions could be raised as to the legitimacy of these permits under the strict reading of the law.

The second type of exception for the incidental take of marine mammals by commercial fisheries is a "small take exemption," which can be secured for fisheries that take relatively small or insignificant numbers of marine mammals, even if no OSP determination has been made. It must also be determined by the National Marine Fisheries Services that the impact of the anticipated incidental take will be "negligible."

Currently, two such exemptions are valid—one for the New England gillnet groundfish fishery and one for the Gulf and Atlantic menhaden fisheries.

Under current law, in no case can either a general permit or a small take exemption be issued to a fishery if any of the marine mammal species to be incidentally taken are accorded "deleted" status—that is, that the population is below the OSP level.

Furthermore, very recent judicial determinations of the Act confirm that a marine mammal species for which no OSP determination has been made is to be treated as if it were depleted in the context of the general permit considerations.

Virtually all of the significant domestic commercial fisheries from California to Alaska have some interaction with a marine mammal that is depleted or is soon to be found depleted, or for which no OSP determination has yet been made.

For example, I understand that a depletion determination for the northern fur seal has just been issued this week and proceedings are under way for making the same determination for the Steller sea lion in the near future. With the exception of the Dall's porpoise, virtually all other marine mammal species that regularly interact with West Coast fisheries have no OSP determinations.

The cold reality is that, unless Congress takes swift action to somehow amend the provisions of the MMPA, many of the fisheries that we are so proud to have developed—that we have spent years fighting to take over from the foreign fleets—and that now represent literally billions of dollars of American investment and production—will be shut down.

As a member of Congress who is painfully aware of the consequences that can result from the unfortunate interactions of commercial fisheries with protected or endangered species, I would have to congratulate the efforts of the environmental community and the domestic fishing industry, who I understand have come here today to present to Congress a proposal for resolving this very difficult dilemma.

I want to thank all of you who have participated in the preliminary meetings prior to today's hearing, because as I have said many times before, I think this is by far the best way to solve some of these perceived to be irresolvable conflicts.

Hopefully, the presentation today will be acted on by the Congress.

I recognize my colleagues for any statements that they have. Senator Packwood.

Senator **Packwood**. Thank you. I have no opening statement.

Senator **Breaux**. Senator Stevens.

OPENING STATEMENT BY SENATOR STEVENS

Senator **Stevens**. Mr. Chairman, I thank you for holding this hearing, and I am very pleased that representation of the fishing industry and the environmental groups have gotten together and reached a compromise on this question of depleted marine mammal species. We all know how important the fishing industry is to Alaska, in particular, and to the Northwest area in general.

I am concerned, however, about the impact of the foreign fishing fleets that are outside of our 200-mile exclusive economic zone. We recognized that impact when we passed last year the bill that dealt with the driftnet fleets, and we have urged that the United States negotiate with the Japanese to monitor the impact of the driftnets.

There has been suggested here in this industry-environmental compromise a concept of observer coverage, and I think it is a good one. But I do think it has to recognize further the impact on the whole ecosystem and the need for proper conservation and management of the entire ecosystem, which really means we have got to look at what one of our staff members, Mr. Esenbud, says is the dilemma of this issue, and that is do we try now to solve the impact of the court decision within our 200- mile EEZ, or do we look outside of our own zone and see if we can solve the problem as a whole?

I would hope, Mr. Chairman, that we could deal with the whole problem.

I also believe that, in addition to that problem, there are the problems facing the people of the Pribilof Islands. You know, we had a fur seal treaty. I am one that thought that the fur seal treaty was working. The Senate decided not to extend it. Instead, we pursued a policy of trying to assit the Pribilof people so they could be removed from their dependence upon sealing, taking the fur seals and selling the furs.

And that has not worked, and the very fact that we are here shows that it has not worked as far as the fur seal, because the court has just held and we have now heard that NOAA is proceeding with a determination that they are a depleted species.

They were not a depleted species when the fur seal treaty was in effect. And what is more, now the Pribilof people tell me that they are not surviving economically. So I do not know that we are going to be able to do it completely in this hearing alone, but I think the committee must go back and re-examine the compromise that was made with regard to providing assistance to the Pribilof people for a transition to a new economy, because the funds that were made available to them just have not been sufficient for that to come about.

Mr. Chairman, I do not know about the rest of you, but I have got a markup. It starts in ten minutes. I am going to stay a little bit beyond that. It is a very important markup, and Senator Glenn has asked me to be there and make a quorum, and I will come back when I can.

I would hope as we review this compromise here that we ask some very pointed questions of why we should not put into effect a solution for the whole ecosystem, and that may mean that we will need to find some way to bring in the foreign fishing fleets, particularly the Japanese, and deal with their driftnets and other fleets, and deal with observer coverage on their fleets and deal with their eligibility to fish in the ecosystem area under permit, subject to the same sort of restrictions as would be applied to the domestic fishermen.

It seems to me we have got to expand the scope. Now, I have got to tell you, that will not be very politically palatable with my people. But it is something, if we are going to do this and make a solution that is comprehensive, we ought to do it now, because we will be faced with it later anyway.

Senator BREAUX. I thank the Senator from Alaska. I certainly appreciate his comments and understand exactly the situation.

We are pleased to have Senator Evans from Washington. Do you have any comments?

Senator EVANS. No, other than to say, Mr. Chairman, I thoroughly agree with the comments that the Senator from Alaska made. I think it is virtually impossible to do an effective job of managing any species if you only have part of its range managed.

And that is clearly where we are now, and we simply have to find a way to do a broader job, or else we will fail in what we are attempting to do.

Senator BREAUX. Senator Adams.

Senator ADAMS. Thank you Senator Breaux, I do have a statement.

OPENING STATEMENT BY SENATOR ADAMS

Mr. Chairman, I have a long history with the Marine Mammal Protection Act, as do several of my colleagues here today. I supported its passage as a U.S. Congressman in 1972, and I strongly support its reauthorization this year.

The Marine Mammal Protection Act has a different focus than some marine resources legislation: it emphasizes preservation rather than management. It says "thou shalt not hurt marine mammals," and then allows for certain types of human/mammal interactions through tightly drawn exemptions.

The challenge before us is to maintain the essential preservation character of the Act, yet deal in a constructive way with the problems caused by interactions between marine mammals and a revitalized fishing industry.

Two types of interaction have been of particular concern. First, there is the problem of nuisance animals, such as Herschel, a somewhat lovable but certainly troublesome sea lion in Seattle, who feeds on salmon and steelhead while swimming up the fish ladders at the Ballard Locks. The second problem involves the incidental take of depleted species of marine mammals by the fishing industry up in the Gulf of Alaska and the Bering Sea. Due to a recent court case, and the declining status of stellar sea lion stocks, the National Marine Fisheries Service (NMFS) has indicated that it will probably not be able to issue incidental take permits next year unless the Act is changed.

To their credit, both the fishing industry and the environmental community have responded to these issues in a cooperative manner. Both sides have been meeting for several months, and the result is a proposal that both sides find acceptable.

I congratulate both sides on their efforts. The fishing industry is to be commended for accepting compliance with the Act as a condition for doing business and for seeking ways to integrate its restrictions into everyday business conduct. The environmental community is also to be commended for seeking ways to maintain commercial fishing activities, while retaining the essential preservation nature of the Act.

The essential bargain is a simple one. The fishing industry receives a three year exemption from the incidental take restrictions in the Act, and in return there will be a major effort to obtain detailed information about the marine mammal resource, and its interactions with the fishing industry.

The one dark cloud on this sunny horizon of cooperation, however, is the proposal that the federal government pay the bulk of the costs. I do not mean to minimize the financial contributions that the fishing industry will make as part of this agreement, because they are significant. I also believe that, in general, the proposed federal costs are a reasonable use of federal funds. I just want to let my friends in both the fishing industry and the environmental community know that a very rocky road is ahead in terms of funding these proposed efforts on a reliable basis.

I hope this hearing today will serve as a starting point for developing implementation on this agreement. I hope we will receive guidance on what type of funding will be involved, how to best streamline the reporting and verification procedures proposed in this agreement, and generate ideas on how to translate this agreement into effective legislation. I would again like to congratulate both the industry and the environmental community on their efforts so far, and I look forward to working with everybody concerned on this important reauthorization.

Senator **Breaux**. I have an opening statement that the Chairman, Senator Hollings, would like to have included in the hearing record.

[The statement follows:]

OPENING STATEMENT BY THE CHAIRMAN

Today's hearing is the second held by the Committee to consider reauthorization of the Marine Mammal Protection Act. In recent weeks, since the reauthorization process was initiated, the response of the American people has been overwhelming. I have received thousands of cards and letters from every region in the United States. Illinois school children, retired New Yorkers, a Georgia housewife, high school students from Miami—all have written to express their concern regarding marine mammals. Their message is simple, direct, and nearly unanimous. Strengthn the Act and stop unnecessary killing of whales, dolphins, and other marine mammals.

Well gentleman, we have received our marching orders. But this is not to say they will be easy to carry out. The most fascinating characteristics of these animals, their intelligence, often seems to confound our best efforts to manage the problem. Sea lions persistently outwit the efforts of fishery managers to prevent them from targeting on runs of salmon and steelhead trout as they congregate at fish ladders in Northwestern rivers. In the Atlantic mackerel fishery, I understand that pilot whales are attracted by the sonar which the fishermen use to locate fish. The whales then feed on the fish caught in the trawl net, and may find themselves in an unintentional, but deadly trap.

Reducing these interactions between marine mammals and fishermen is a task with few simple solutions. We must keep in mind, however, that the success of our efforts finally will rely on the fishermen who face the problems daily, at sea. Both their concerns and their expertise must be brought to bear in developing effective solutions. For that reason, I commend the conservationists and fishermen who have participated in a joint discussion of methods for resolving fishery-marine mammal conflicts. I think their approach is a good one. In addition, I am encouraged that their proposal seems to have kept sight of the goal of the MMPA when it was enacted, that is, to maintain the health and stability of the marine ecosystem. The proposal contains some excellent recommendations which I hope we can implement. I look forward to today's testimony and to working with all of you to complete the reauthorization process.

Senator **Breaux**. I thank all members for their comments.

We would like to welcome up the first panel. I have asked the Administration to be second because I would like them to comment on the presentation of the panel, if it is all right with them.

Gentlemen, if you would come up and take your positions at the witness table. We have invited Michael Bean, chairman of the wildlife program for the Environmental Defense Fund;

Mr. Dayton Lee Alverson, who is managing partner in Natural Resources Consultants;

Mr. Bo Bricklemyer, who is counsel for Ocean Ecology, Greenpeace USA; and

Mr. Deming Cowles, Washington counsel for the United Fishermen of Alaska and the Bering Sea Fishermen's Association.

Gentlemen, if you have anybody else that needs to accompany you, please ask them to join you at the table.

Let me congratulate the panel for the work you have been doing. I know you represent a large number of groups and organizations, and you all have been working together very well. We appreciate your effort.

Mr. Bean, if you would go ahead first, we would appreciate hearing from you.

STATEMENT OF MICHAEL BEAN, CHAIRMAN, WILDLIFE PROGRAM, ENVIRONMENTAL DEFENSE FUND

Mr. **Bean**. Thank you very much, Mr. Chairman.

My name is Michael Bean. I am Chairman of the Wildlife Program of the Environmental Defense Fund. I would ask that my testimony be accepted into the record in its entirety. I will briefly summarize its key points.

Senator **Breaux**. Without objection. And I would ask all the members of this panel to follow that same rule, so we can get to the questions.

Mr. **Bean**. The basic point that I have tried to make in my testimony is that the general permitting program of the Marine Mammal Protection Act, the program by which the Act tries to monitor and regulate the incidental taking of marine mammals in the course of commercial fishing operations, has not worked particularly well.

The reasons for that are several. In most fisheries, most fishermen do not participate in the program by seeking certificates of inclusion under the general permit. And again, in most fisheries, of those fishermen who do participate, most do not file the required annual reports.

As a result, 15 years or so after enactment of the Marine Mammal Protection Act we have relatively little idea of the nature and magnitude of the marine mammal impacts of most fisheries. They could be substantial, they could be negligible.

In most cases, we simply do not know, because the Act has not worked very well in generating the information we need. We do know from a variety of sources, including observer programs aboard foreign fishing vessels under the FCMA and other sources, that at least two of the marine mammal populations of concern have declined rather alarmingly over the last decade or more, those being the northern fur seal and the northern sea lion.

In February of this year, there was a court decision, to which you have referred in your opening statement, that cast in doubt the continuation of the existing general permitting program, precisely because neither the National Marine Fisheries Service, nor anyone else for that matter, knows the status of most of the affected marine mammal stocks.

Because that decision created some uncertainty with respect to the assurances that our fishing industry needs to continue fishing without fear of inadvertently violating the Marine Mammal Protection Act, and because the environmental community recognized that the system that we had in place had not worked very well, we each had a congruence of interests. Both the fishing industry and the environmental community recognized an opportunity stemming from this situation to try to design a better program, one that would provide the industry with the assurances it needed to continue fishing without fear of violating the law and that provided some better assurance of gathering information about marine mammals that would enable us to more effectively conserve and protect them.

Because of that congruence of interests, we have negotiated over a period of several months the terms of an agreement. We have now essentially agreed on all the details of that, and we are here this morning to recommend it to you.

We hope that you will give it serious and careful consideration, because we both believe it does accomplish those two mutual objectives, that is of providing the assurances the industry needs to continue and providing a better system for gathering information and managing marine mammals.

I will not describe the details of that agreement. I think others on the panel may choose to do so. But I just want to offer that as background to how we got here and to suggest to you that this is a very carefully negotiated and carefully wrought compromise, and I hope that you will find it a creative and useful one.

Thank you.

[The statement follows:]

STATEMENT OF MICHAEL J. BEAN, ENVIRONMENTAL DEFENSE FUND

One of the challenges of policy-making, as in other aspects of life, is to look at problems not simply as problems, but also as opportunities. Since early this year, there has been much stir about a court decision that appeared to call in question the government's ability to continue to issue permits that many fishermen need in order to fish without fear of violating the Marine Mammal Protection Act. There is not much debate that that is a problem. What I hope to show in this testimony is that that problem presents an opportunity to restore the assurances that fishermen seek while at the same time improving our ability to understand and conserve marine mammals. To do so, it is necessary first to take a step back and examine how effectively the Act's purposes are being achieved with respect to fisheries.

When Congress passed the Marine Mammal Protection Act in 1972, it was well aware that at least one fishery, the American tuna fishery, was having a major impact upon marine mammals. There was some level of awareness that other fisheries also might affect marine mammals, though the identity of these fisheries and the nature and magnitude of potential impacts were largely unknown. Despite these considerable differences in understanding of the various fisheries, the Marine Mammal Protection Act set forth a uniform set of rules and procedures with respect to the taking of marine mammals incidental to commercial fishing operations.

As this Committee heard a few weeks ago, there has been a sustained and mostly successful effort to monitor and minimize the impact of the American tuna fleet on marine mammals. The elements of that effort have included substantial research into the status of affected mammal stocks and the development of porpoise-protective gear, focused educational efforts aimed at improving the ability of American tuna fishermen to avoid porpoise mortalities, and significant observer programs to provide reliable information about the impact of that fishery on marine mammals.

With respect to other fisheries, our understanding of the nature and magnitude of their impacts on marine mammals is not much better today than it was when the Act was passed. The general permitting system of the MMPA has generated little if any useful information about the magnitude of marine mammal impacts associated with most fisheries. In theory, the MMPA operates through "general permits" issued for several categories of fisheries. Fishermen operating in those fisheries can be assured of immunity from prosecution under the MMPA for incidentally taking marine mammals if they secure a free "certificate of inclusion" under the appropriate general permit. In practice, a majority of fishermen in most fisheries have not bothered to secure a certificate of inclusion. Those that do are required to submit an annual report that, among other things, includes information about incidental takings. Even among the relatively small number of fishermen who have secured a certificate of inclusion, the great majority have never submitted the required report. What reports have been submitted have not been put to any use because NMFS properly regards them as having no value. Thus, as an information-gathering mechanism, the MMPA general permit system has failed. As a regulatory measure, it has fared no better; the limits imposed in the general permits on the numbers of marine mammals that may lawfully be taken were arbitrarily set and, since no one knows how many animals are in fact taken, they are utterly unenforceable.

Despite the failure of the MMPA general permit system to generate useful information about the impacts of most fisheries on marine mammals, we do have new information suggesting the need for attention to those impacts. That information has often been acquired as a result of efforts undertaken under the authority of other laws or programs. For example, as a result of the requirement of the FCMA that foreign fishing vessels operating in our FCZ carry U.S. observers, we know that potentially significant numbers of marine mammals have been incidentally taken in trawl fisheries for groundfish off Alaska and mackerel in the north Atlantic. State-initiated observer programs and various research efforts have documented continuing mammal mortalities in other fisheries as well. Finally, though the level of mortality from this source is unknown, fishing industry representatives readily acknowledge that intentional shooting of marine mammals undoubtedly occurs in some fisheries, including the coastal salmon gill net fisheries of Alaska, in order to keep mammals away from gear and catch.

At least two of the mammal species taken in certain of the Alaskan fisheries—the northern (or Steller's) sea lion and the North Pacific fur seal—are known to have suffered dramatic population declines since the MMPA was enacted. These declines cannot definitely be attributed to incidental takings in fisheries, but neither can it be said that they are definitely not attributable to such takings. The unfortunate truth is that no one yet knows what is causing this alarming and ongoing loss of marine mammals. Incidental takings in fisheries may have essentially nothing to do with it, although fishing activity may be implicated in a more subtle way. The intensity and efficiency of modern fishing efforts may be so fundamentally changing the relative abundance of species at various levels of the food chain as to cause a prolonged decline of these marine mammals.

Let me return at this point of admitted speculation to a brief discussion of the fundamental purpose of the Marine Mammal Protection Act. The purpose of the MMPA, unlike the Endangered Species Act that followed it, was not simply to prevent the extinction of species immediately faced with that plight. Rather, it had a more ambitious goal. Its goal reflected the belief that marine mammals often play important roles in shaping the dynamics of their ecosystems or are at least acutely sensitive to those dynamics. Thus, maintaining marine mammals at population levels that contribute to "the health and stability of the marine ecosystem" was a shorthand way of saying that Congress sought to avoid radical perturbations in marine ecosystems, that full ramifications of which we might be unable to recognize in time to reverse them.

The Act's novel management standard, "optimum sustainable population", or "OSP", was to be the mechanism through which this broader goal was to be achieved. By maintaining marine mammals at OSP levels, or restoring them to those levels, the Act sought to ensure that marine mammals would not be reduced to peripheral populations unable to continue to contribute significantly to the dynamics of their ecosystem. In practice, because of the very limited information available to us, it has often been difficult to determine whether particular marine mammal population stocks or species are at OSP or below it. Our difficulty in making these determinations is in part a reflection of our families to generate much useful information from the general permitting scheme for fisheries and more broadly a result of the lack of sustained research and focused conservation planning under the MMPA.

It is important to keep this background in mind when considering the consequences of a court decision last February involving the Japanese salmon gill net fishery off Alaska. In that suit, an Alaska native fishing group and several environmental groups challenged the issuance by the National Marine Fisheries Service of a permit to the Japanese to allow the incidental taking of Dall's porpoises. The NMFS permit authorized the incidental taking only of Dall's porpoises, the principally affected marine mammal species, and one that NMFS found to be at its OSP level. However, NMFS recognized that the incidental taking of at least five other types of marine mammals was foreseeable. Because NMFS did not know whether any of these was at or below OSP, it was without the authority to authorize their taking. NMFS therefore elected to issue the permit authorizing the incidental taking of the one type of marine mammals determined to be at OSP and to treat any other takings that may occur as illegal. The court held that because the taking of other marine mammals was "not merely a remote possibility but a certainty", NMFS could not legally authorize the taking of any marine mammals.

While this court decision creates some difficulties for various American fisheries, they are neither as severe nor quite the same as those that confront the Japanese salmon gill net fishery. In 1981, Congress created a special exception from the general requirements of the Act for U.S. fisheries that result in the incidental taking of "small numbers" of non-depleted marine mammals and that have only a "negligible impact" on the species or stocks from which the taking occurs. That special exception was not involved in the Japanese salmon case and nothing in the court's decision limits its continued availability to U.S. fishermen. For any U.S. fishery that causes the incidental taking of more than "small numbers" of marine mammals, or the taking of a depleted species, however, NMFS has concluded that the court's decision prevents it from renewing the general permits that currently protect fishermen form inadvertent violations of the MMPA. This is particularly significant in light of the fact that a number of fisheries incidentally take Steller's sea lions or North Pacific fur seals, two species whose prolonged and dramatic declines make them almost certainly depleted.

The uncertainty that clouded the regulatory future of these U.S. fisheries coincided with a recognition within the environmental community that the existing regulatory structure had done little to answer basic questions about the nature and magnitude of most fisheries impacts, the causes of the decline of the Steller's sea lion and North Pacific fur seal in particular, and the general conservation status of other potentially affected species. As a result of that coincidence of interests, environmental and fishing industry representatives have endeavored over the last few months to design a program that gives fishermen the needed assurance that they can continue fishing without inadvertently violating federal law, while at the same time improving our ability to understand and conserve marine mammals. We have reached agreement on a program that has several important elements. These include greatly expanded participation of fishermen in the reporting of their interactions with marine mammals, the use of a modest observer corps in selected fisheries to gather vital scientific information about marine mammals and other living resources, and the development of focused conservation plans for species most immediately in need of conservation attention.

The program that we have mutually developed is a significant departure from the current system and therefore may appear to introduce new complexities into the MMPA. It is also likely to be more costly than the current program. In particular, the limited observer requirements envisioned for that program may cost two million dollars or more annually. It is important to emphasize, however, that the observer corps we envision is to be charged with gathering not simply information about marine mammals, but a whole wide range of biological data. Ironically, the intelligent management of our ocean fisheries has depended significantly upon the information gathered by U.S. observers stationed aboard foreign fishing vessels under authority of the FCMA. Now that most foreign fishing is being rapidly phased out of the FCZ, we have available less and less observer data on which fishery management decisions can be based. By charging the observers envisioned in this agreement with the responsibility of being living resource observers, and not just marine mammal observers, we can expect to derive benefits beyond those that are solely concerned with the conservation of marine mammals.

Our agreement is a creative response to the problems identified in the February decision of the Court of Appeals. It is creative because it addresses as well the underlying problem of the failure of the MMPA, as it has heretofore operated, to generate useful information about marine mammals, much less provide them with meaningful protection. Some might be tempted to avoid the novelty and expense of our recommended approach by a simpler solution, merely reversing the narrow holding of the court and thus returning to the prior status quo. That solution, however, is really satisfactory to no one, for it promises no hope of improved conservation of marine mammals and because it leaves fishermen exposed to potentially more stringent restrictions if the current dramatic population declines affecting some marine mammals are not quickly understood and reversed.

Senator BREAUX. Thank you, Mr. Bean.

Next we will hear from Mr. Cowles.

STATEMENT OF DEMING COWLES, WASHINGTON COUNSEL, UNITED FISHERMEN OF ALASKA AND BERING SEA FISHERMEN'S ASSOCIATION

Mr. COWLES. Chairman Breaux, Senator Stevens, Senator Evans, Senator Adams:

I am Deming Cowles, Washington Counsel for the Bering Sea Fishermen's Association, a largely native commercial fishing association with some 1500 members throughout western Alaska, and also for the United Fishermen of Alaska, an association of some 20 commercial fishing groups and individuals throughout Alaska and Washington and California.

I have also been a commercial fishing industry co-negotiator on this conservation community compromise on depleted take by U.S. commercial fishermen.

The Chinese have a blessing or a curse, whichever works, that goes something like: May you live in interesting times. The U.S. commercial fishing industry is certainly living in interesting times these days, especially the commercial fishermen in Alaska.

The groups I represent have been before you on many occasions in the recent past to testify on a whole host of issues that affect how we do our business in an increasingly complex natural and economic environment. You have generally been most responsive to our requests to help us help ourselves.

And I will give you a few examples: The high seas interception issues resulting in the driftnet legislation, in which you listened to our pleas to thwart the devastating practices of the squid and salmon fleets on the high seas. The State and Commerce Departments still need to conduct those negotiations, but you were very responsive.

Marketing legislation; vessel safety and insurance legislation; coastal policy legislation whereby commercial fishermen have sought to be more of a partner in the decisions our governments make impacting our fishing grounds and habitats.

Today we are here to talk about reauthorization of the Marine Mammal Protection Act. The commercial fishing industry's concern is that we will not be able to conduct our fishing operations after January 1, 1989, in a number of fisheries around our western coast line if we take depleted or de facto depleted mammals incidental to our operations or in a limited, directed manner in protection of our gear, livelihood or lives.

Since there may well be limited takes in those instances, our member groups of the commercial, the U.S. commercial fishing industry are here today to seek that provision. Now, we had two choices when we talked among the members of the commercial fishing industry: We could have come to Congress as the U.S. commercial industry with our concern and asked that you fix it; or we could work with the environmental community, who has strong legitimate concerns about the depleted issue itself to try to arrive at a joint solution, and then come to Congress together with the environmental community to seek redress and funding.

We sought advice from many people on the Hill, who suggested the latter approach. That certainly coincides with the attitudes of the groups I represent who felt that the latter approach would be the most responsive and responsible, particularly given the limited time and the limited number of legislative days.

Industry embarked on further interesting times. It took several months to assemble concerned groups and put the negotiations together, and about two months total, through some intensive negotiation sessions, to hammer out an agreement.

The result is the agreement brought before you today and on which we have started to have lengthy discussions with some of you and with many of your staff.

Dr. Alverson will detail the elements of the agreement. Suffice it to say that we have several important interlocking elements of: education of the commercial fishing industry, basic research on population dynamics and biology needed by NMFS to make appropriate population status determinations; verification and observer efforts funded by the government; and permitting and reporting requirements.

The central question of most fishermen and fishing groups—and I would assume this is true with the environmental community as well—is whether the approach we bring to you today is workable, given all the relevant time constraints. Granted, it is a comprehensive and complex and ambitious effort.

It will require substantial commitment on all our parts: the fishermen to cooperate in permitting and reporting requirements; the environmental community to assist in education and priority-setting; the states, to assist in education, verification, and data collection; National Marine Fisheries Service, to assist in all facets, to set priorities in research and to establish better timetables for management decisions, and to redirect some efforts, given this national priority; and of course, Congress for authorization, funding, and constant oversight.

Without all of these efforts coming together in a cooperative, cohesive program, we will be no better off in three years than we are today. And might I add, one very important reason we have this problem today is that marine mammal protection and its interface with commercial fishing has not been given the priority and focus it should have had over the last several years on all fronts.

Our objective from the beginning has been to be able to continue our legitimate commercial fishing operations after January 1, 1989. We must have in place a system that will allow that and that will also foster easy compliance, that will gather the information that is needed to make sound management and conservation decisions, and that preserves and protects our mammal populations.

If this effort is made and is implemented correctly, we will be able to move closer to more comprehensive fisheries and mammal conservation and management efforts through better coordination of the various relevant statutes, including the Magnuson Act and the Marine Mammal Act.

We still have a great deal of work to do to assure that appropriate authorizations and appropriations are in place to allow uninterrupted commercial fishing by the United States industry after January 1, 1989, and to further our efforts in mammal protection.

We appreciate your efforts today and look forward to working with you in the next several months. Thank you.

[The statement follows:]

STATEMENT OF C. DEMING COWLES, COUNSEL, BERING SEA FISHERMEN'S ASSOCIATION AND UNITED FISHERMEN OF ALASKA

I am Deming Cowles, Washington counsel for the Bering Sea Fishermen's Association (located in Anchorage) and for the United Fishermen of Alaska (located in Juneau). I am pleased to have the opportunity to testify on their behalf today on the reauthorization of the Marine Mammal Protection Act.

The Bering Sea Fishermen's Association (BSFA) is a commercial fishing organization representing some 1500 western Alaska residents who traditionally fish for salmon and herring from small boats. The region of Alaska that BSFA represents consists of the coastline starting from the North with Kotzebue and Nome and running South through Bristol Bay. This area includes the fisheries of the Kuskokwim, the Upper Yukon, the Lower Yukon, Norton Sound and Kotzebue--all relatively small and primarily conducted by Alaska natives--as well as the valuable fisheries of Bristol Bay. Incomes throughout much of this area are among the lowest in the nation. Most of the commercial fishermen of the area also conduct subsistence fisheries to provide their families with food for the year.

The United Fishermen of Alaska (UFA) is a private, non-profit, statewide organization for 20 fishermen's associations, including marketing and aquaculture organizations and several specific gear groups. Including some 1500 individual members, UFA has a total representation of some 12,000 fishermen from Alaska, Washington, Oregon and California, all of whom fish in Alaskan waters. It may help you to know that UFA has member groups based in Warrenton, Oregon, Seattle, Washington, and Anchorage, Dillingham, Cordova, Homer, Sitka, Sand Point, Petersburg, Ketchikan, Kenai, and Juneau, Alaska. UFA has been active on specific national fishing legislation and has recently expanded its efforts at the national level to increase public awareness of the importance of commercial fishing to the nation.

The Marine Mammal Protection Act (MMPA) is an important cornerstone of legislation dealing with our marine ecosystem. It is an important element of protection to the native members of BSFA and UFA. To the other members of UFA, it is a piece of legislation the goals of which we know to be important and within which we are learning to operate. You know that the commercial fishing community deals most frequently with the Fishery Conservation and Management Act (FCMA), and for years has discussed with you rational and legitimate methods of bringing closer together the elements of both the MMPA and the FCMA to assure more coordinated living marine resource conservation and management. As members of the conservation community, responsible fishermen and their organizations have long recognized the need to manage our fishery resources wisely. We have also been broadly supportive of other elements of environmental and conservation legislation aimed at protecting and preserving our marine environment, and have worked closely with "environmental groups" to proffer and promote rational conservation legislation. While we may frequently disagree with members of "environmental groups" on elements of legislation, it was, none the less, odd to find ourselves potentially on "the other side of the table" from the remainder of the conservation community when the issue of reauthorization of the MMPA began last year.

It was because the fishing community wished to continue working toward sound conservation and management legislation affecting the living marine resources that it established an industry working group and proposed to the rest of the conservation community that we attempt to develop a consensus position on the reauthorization of the MMPA. BSFA and UFA contacted Greenpeace last year to determine if they would be interested in putting together a delegation of environmental group representatives to talk with a similar group of fishing organizations on issues of mutual concern likely to be raised by one side or the other during the reauthorization process. Once agreed to, a large coalition of primarily West Coast commercial and recreational fishing interests (with observer-participators from various East Coast fishing interests) began to meet with a wide representation of the rest of the conservation community to develop a consensus on the most critical issue affecting the commercial fishing industry during MMPA reauthorization--how to deal with the current prohibition in the law relating to the take of depleted mammals incidental to commercial fishing operations conducted by U.S. fishing vessels.

Dr. Alverson is testifying today on the results of negotiations conducted over a two month period--an agreement in principle from representatives of the two "sides" of the conservation community recommending to Congress how we should work with NMFS and the states toward a more satisfactory system under the MMPA and the FCMA.

BSFA supports the compromise and urges the Congress to adopt it to avoid any confusion related to the continuation of commercial fishing operations after the first of next year. UFA is currently reviewing the proposal with its executive board, many of whom have already gone out on the fishing grounds, causing some dislocation in the final review and approval process.

As you are learning, the proposal is comprehensive and will require substantial effort and cooperation on the part of fishing associations and individual fishermen, NMFS, the states and the environmental community to make it work. It will also require the commitment of adequate funding. In essence, we all have a large role to play if this program is to be successful, as we all have a large stake in the success of the program.

Dr. Alverson will outline in some detail the elements of the proposal. I would like to make some observations on a few of them, to try to increase your understanding of what we agreed to, and why. First, we believe every effort must be made to focus NMFS on working cooperatively with states and the conservation community as a whole. We are in our current predicament in large part because basic research and data collection and evaluation efforts have not gone forward. In essence, we have precious little information on which to make basic management decisions. At risk on one hand is the mammal population, about which NMFS still seems to be able to make few determinations required under the MMPA. On the other hand, failure to make those determinations creates frustration within the fishing industry, while causing to hang over the industry's head concern about whether fishing operations will be able to be conducted after January 1, 1989 in a practicable manner. If NMFS does not gather adequate information on the status of mammals, there will be unacceptable consequences for both the fishing industry and the environmental community. Thus, we need the assistance of Congress in assuring proper direction is given NMFS concerning their efforts under the MMPA, including specific direction in any funding appropriated for implementation of the MMPA. While it is a tall order to gather, evaluate and act on the data necessary to proper management and conservation, we believe that both the MMPA and the health of the U.S. commercial fishing industry require it.

Second, the proposal calls for a largely industry-supported education effort. We believe this is a vital element in the success of data gathering, development of mitigation efforts, attempts at developing recovery plans and all other aspects of our joint proposal. We need Congressional direction to NMFS to work cooperatively with the states and the affected members of the conservation community to assure a successful education effort. If we are asking individual members of the fishing industry to "learn new ways," then they should be able to expect focused, rational implementation on the part of NMFS, which leads me to my next point.

Third, there need to be better efforts to coordinate the MMPA with the FCMA. The fishing industry and the environmental community have had substantial discussions during these negotiations to the effect that there should be more focus on the total living marine resources, allowing for better coordination within NMFS on management and conservation decisions. Data collection and evaluation need to be better coordinated; research efforts need to be better focused on real world problems and priorities; lines of communication need to be improved to minimize conflicts with affected conservation groups over matters of program development and implementation. Simply put, there needs to be greater awareness that, in this era of severe budget restrictions, closer cooperation and better prioritization need to occur.

Take, for example, the proposed observer program. Both industry and the environmental community believe the development of living marine resource observers is the appropriate step to take. By approaching our verification needs in this manner, we can assure more uniform and complete coverage of entire fisheries. Thus, to assure that a minimum percent coverage on a fishery by fishery basis throughout the EEZ off the Alaska coast, with observers being added when "further problem areas" are identified, for an appropriate period of time, makes sense when trying to develop adequate data on which to make management decisions. While it does not eliminate the need for government funding in these most important areas of fishery and mammal management and conservation, it does minimize duplication and waste. It provides data for a multitude of management purposes, including mammal interaction with fisheries and by-catch considerations.

An additional example is the effort to develop priorities within fisheries for data collection and verification. Certain fisheries with limited and non-continuing interaction with mammals should not have the same restrictive permitting and reporting requirements as fisheries with continuing and documented lethal or injurious interactions. There should be a method by which fisheries subject to the more extensive permitting and reporting requirements can "graduate" to the less restrictive, "rare" case, as is advanced in our proposal. That will allow data to be collected and evaluated in areas that are important to resolving mammal-fishery interaction problems, and avoid focusing on "non-problems."

A fourth observation has to do with an essential element of the proposal. As agreed, this approach applies only to U.S. fishing vessel, as does the small take provision under current law. This includes the domestic fishing component of a joint venture. Substantial financial and other commitments are proposed under this agreement for industry to assume on their own as well as cooperatively with the environmental community and the federal government--education, research, verification, reporting and the like. To date, our segment of the industry has a good record of commitment to sound conservation and management practises. We have worked to see enacted strong plastics pollution, fisheries management, driftnet and other legislation that will provide for a more rational management of our nation's and the world's ocean resources. Now our segment of the industry proffers for your approval another step in wise management of our resources, and asks that you impose additional responsibilities on us in return for the limited take of depleted mammals incidental to our regulated fishing operations. At least on the West Coast, non-U.S. fishing operations are not similarly situated.

One final observation is in order. As of the time of preparation of this statement, the fishing industry and the environmental community are unable to agree in principle in only one regard--the abilitity of fishermen to have a directed lethal take of declining depleted mammals in defense of gear or catch. In essence, what the fishing industry has proposed is that a fishermen have, after taking all reasonable deterrent steps, the very limited ability to take a mammal intent on tearing up a net and denying a fisherman the ability to fish. Of all the issues, this has been the most difficult because it focuses the principles of both "sides" perhaps most precisely. We clearly understand that this is a very difficult position for the environmental community.

For the fishermen, the issue is a matter of livelihood. For example, in the salmon gillnet fisheries, Northern Stellers can tear up a $3500 net, remove the catch and keep the fishermen from participating in the remainder of a salmon "opening." The number of "openings" can be limited, and loss of gear, catch and anticipated catch can mean a substantial hardship. There is not a substantial number of such occurrences, but we do not want to make our fishermen law violators when it does occur, however infrequently. Both sides have spent a considerable amount of time trying to develop an acceptable compromise, but at this time we are sorry to say that we will jointly need to discuss this matter with the Committee in an effort to resolve it.

Mr. Chairman, members of the fishing industry endorsing this agreement have come a long way in our efforts since we began discussing reauthorization of the MMPA last summer. The members of the environmental community who negotiated this proposal with us have come a long way in their efforts to meet our operational needs while assuring what they feel is a proper conservation regime. As with any compromise, none of us is completely pleased with every aspect of the proposal. If adopted by the Congress, additional burdens will be placed on both communities. But rather than look at what each "side" is "giving," it seems to me that we need to understand what all of us will potentially be "getting" if this system is developed and implemented effectively. We hope this will lead to better management systems and processes, and better overall marine resource conservation and management-- a closer coordination between fishery and mammal management under the MMPA and the MFCMA. There seems to be the appropriate commitment on "both sides" to try to see that objective realized.

One final note. Dr. Alverson and I would like to acknowledge for the record the active and helpful participation of the following persons representing industry throughout these negotiations: Ted Kronmiller, for the Alaska Crab Coalition; Terry Wright, for the Northwest Indian Fisheries Commission; Guy Thornburgh, for the Pacific Marine Fisheries Commission; Ken Larson, for the North Pacific Fishing Vessel Owners; Harold Sparck, for various Western Alaska fishing groups; Dennis Phelan, for the Pacific Seafood Processors Association; Dick Gutting, for the National Fisheries Institute; and Lucy Sloan, for the Point Judith Cooperative. Each of their efforts was critical to the resultant agreement.

We stand ready to work with the Committee in your review and consideration of this proposal, as you proceed to markup.

STATEMENT OF BO BRICKLEMYER, COUNSEL, OCEAN ECOLOGY, GREENPEACE USA

Mr. **Bricklemyer**. Good morning. My name name is Bo Bricklemyer. I am Counsel for Ocean Ecology at Greenpeace and appearing this morning on behalf of the over 25 conservation and animal welfare groups that comprise the Marine Mammal Protection Act Reauthorization Coalition.

I would begin by thanking you for inviting us to share our views. We hope they will prove useful in the reauthorization of a strong Marine Mammal Protection Act. Our community sees this law as a progressive and critical piece of environmental legislation, long overdue when it was passed in 1972 to remedy the exploitation of these animals. And while in the subsequent 16 years some species, such as California sea lions and grey whales, have staged recoveries, others have not. Northern fur seals, for instance, are estimated to be declining at the rate of 5 to 7 percent per year, and as noted by Senator Breaux, yesterday were formally designated depleted by the National Marine Fisheries Service.

The total number of Steller's sea lions observed at haulouts in Alaska has decreased 52 percent since 1960. Harbor porpoise, a number of tropical Pacific dolphins, and many great whales are still in serious trouble.

It is not a time to weaken the MMPA but an occasion to renew our nation's commitment to marine mammals and to the protection of the health and stability of the marine ecosystem upon which they depend.

As noted by other speakers, foremost in the minds of many is the status of the marine mammal incidental take permits for our commercial fishermen. The current process for permitting such takes as implemented by NMFS has serious problems. while the permitting process is designed to be driven by science, we find that good information is too often lacking.

I would like to outline some of the reasons for this. Permits are issued to a broad class of fishermen without accounting for the number and diversity of gear types within the class; although the regulations require reporting by individual fishermen, participation, as noted, has been very limited, and there appears to be little if any analysis of the data which is reported.

The permits establish annual quotas on take of each species, but without the fishery-specific reporting, without monitoring and without analysis of the limited data which does come in, the actual take and level of incidental mortality of marine mammals is largely unknown.

Finally, research programs have been limited in both scope and funding and therefore have added relatively little new information.

Thus, without knowledge of the takes in specific fisheries, and without independent research data, the information on which to base the waiver of the moratorium to allow incidental takes or to trigger mitigating efforts (should these takes pose harm to subject species) does not exist.

These failings, coupled with the *Kokechik* decision in the Dall's porpoise case, and the fact that all general and small take permits expire at the end of 1988, led to the series of meetings between the industry and the conservation community already described. We feel both sides have worked hard, bargained in good faith, and made concessions important to reaching our mutual goals: to continue the protection accorded marine mammals in the United States while assuring that our commercial fisheries which have interaction problems will be able to operate while we gather needed information through a program with an adequate safety net.

The amendments which we recommend to you in our joint proposal, each element of which is essential to the overall agreement, would accomplish the goals by establishing the following: a three year limited exception to the moratorium to allow incidental take of small numbers of marine mammals for which OSP cannot now be determined or which are designated depleted; an industry-wide education program; a revised and invigorated reporting system; a verification system including an MMPA/Magnuson Act living marine resource observer corps; a new data analysis system; a research program that is focused on specific problems; recovery plans, habitat protection zones and mitigation mechanisms; and definite time lines and procedures to assure that the process for determination of depleted designations is open, complete and efficient.

At this point we have an agreement which you have received resolving all the issues which we have addressed except the question of whether fishermen should be allowed to intentionally kill Steller's sea lion. That issue we are working on and are continuing our discussions of ways to mitigate these interactions other than by intentional lethal take.

I would like to move briefly to other areas of interest to the coalition. In addition to seeking the solutions in he tuna-dolphin matter which we have already discussed at an earlier hearing, we seek an amendment to the act to clarify congressional intent that permits for display assure that the captivity will serve truly educational purposes; that scientific permits truly expand our scientific knowledge; that takings in these former two categories be accomplished in the most humane manner possible; and that permits be required for whale watching vessels.

As far as the issue of "nuisance animals," which people from the Northwest are most familiar with, individuals which sometimes predate commercially valuable fish often aided by manmade or unnatural fish aggregations, except for the instance of the predation by the California sea lion on steelhead at the Ballard Locks in Seattle, we have yet to receive substantial evidence that this is a significant problem. We therefore oppose any changes in the law to give federal or state officials the right to kill such marine mammals.

We feel this is especially true since in addition to the fact that the change would be based upon an unproven premise. This problem, if it exists, can be resolved by a request for a waiver of the moratorium under the Act as written.

Finally, we agree with Senator Stevens that further efforts and funding may be necessary to move the Aleut economy away from one based on fur seals.

In closing, I would only emphasize that we look forward to working with you on each of these important elements and to a three year reauthorization of the MMPA.

Thank you.

Senator **Breaux**. Thank you, Mr. Bricklemyer.

Dr. Alverson, Lee, glad to have you back.

STATEMENT OF DR. DAYTON LEE ALVERSON, MANAGING PARTNER, NATURAL RESOURCES CONSULTANTS

Dr. **Alverson**. Senator Breaux, other Senators, staff, my name is Lee Alverson. I am Managing Partner of Natural Resources Consultants speaking here today on behalf of the fishing industry involved in the negotiations with the environmental community.

Our joint objectives have been to promote a legislative change in the MMPA which would provide for the continued and improved conservation of marine mammals while at the same time allowing important commercial fishing activities to continue operations with limited impacts.

Mr. Chairman, I have submitted a rather lengthy paper outlining the view of our major sector of the Pacific northwest fishing industry, on the characteristics of the agreement that has been hammered out between the conservation and environmental groups over the past several months. We have agreed upon a comprehensive program that includes mutual goals, education, data collection and analysis, incidental catch verification, and the establishment of an industry conservation group which would meet annually to examine the program's performance.

In achieving this agreement, both parties were forced to retreat from their original positions, but in a spirit of compromise and in recognition of the other side's legitimate concerns. A copy of the agreement with details of the five points I understand has been provided the committee. It is not my intention to elaborate on the specifics of the five essential program components but I think a few comments from the industry's point of view on its ingredients are worthwhile.

First, the industry has agreed to fund and carry out an extensive education program which will enlighten fishermen of the goals and objectives of the MMPA and the potential consequences to fisheries of continued decline in important marine mammal populations and the importance of data collection and reporting as it relates to establishing a data base upon which reasonable and enlightened management decisions can be taken.

Second, the industry has also agreed to secure the funds for dissemination and collection of a data compilation system for a newly proposed information retrieval and concerned with particularly the fishing and marine mammal interaction problem.

Thirdly, both sides have agreed to establish a scientific group which would assist government in the analysis of the status of stock interpretation and to expand research efforts on the status of stocks themselves.

Fourthly, there is a verification process which includes a major observer program on specific designated fisheries limited to the contiguous west coast states at the present time, and Alaska. This is an observer program that is designed as a natural resource observer program for both marine mammals as well as obtaining information that are needed for effective management of the fishery resources of the region.

The program, which was felt essential to the agreement by both parties, will provide information which will be needed for the management of important marine mammal and fisheries resources inhabiting the Pacific northwest and other regions. In general, it is designed on approximately 2 percent coverage of the key fisheries having observed continued interactions with marine mammals but with an allowance to increase this coverage where there is a need to get better and more reliable data.

Mr. Chairman, I have been involved with the fisheries science and management for over 30 years, and I recognize that the observer programs are at times controversial to the fishing industry. Nevertheless, the observer program is seen as the only legitimate and reasonable solution for collecting reliable information on which to base and to resolve the growing user group complaints which have arisen as a result of the inherent goals of the MMPA and the MFCMA as well as the intergear fishing conflicts emerging under the councils of the Pacific northwest and Alaska.

Each act in its own way has been designed to meet specific conservation and/or use goals, but from the different sectors of the oceans, for different sectors of the oceans living resources and from different philosophical and resource management concepts. Achieving the specific goals of the MMPA and the MFCMA are just not obtainable without an expanded statistical and scientific data base. From my perspective, failure to provide the funding requested for the research for the observer program associated with the agreement achieved will only escalate conflicts between the various ocean user groups. Congress will thus be increasingly plagued with proposals for solutions based on emotional interpretations of what are occurring in our oceans adjacent to our nation.

The agreement contains some elements which will not be popular with our respective groups but were considered essential to the common goals in achieving an agreement.

We still have not, as several have commented, resolved the issue concerned with direct kills of Steller's sea lions. The remainder of the agreement is intact. A regards to the Steller's sea lion situation, there are philosophical differences remaining between the two sides. Fishermen wish to protect their gear and perhaps at times their life from attacks by marine mammals. Conservationists, on the other hand, do not wish to condone killing of marine mammal species which are below optimum stable population and are declining. Obviously there is merit in both of these arguments, and there is no easy solution to the issue.

Gentlemen, it is my hope that you will study carefully the proposal and develop the appropriate legislative language and funding commitments needed to achieve this goal.

In conclusion, it is important to note that the agreement has associated costs. The industry and the environmental community have agreed to share some of these costs, but in essence, it is both sides' view that it is government's responsibility and obligation for management and to acquire the needed scientific and statistical information to achieve a diverse social and economic goals associated with the oceans.

Thank you.

[The statement follows:]

STATEMENT OF COMMERCIAL FISHING INDUSTRY REPRESENTATIVES

The following testimony is presented by Dr. Dayton L. Alverson for and on behalf of a group of commercial fishing industry representatives which has been involved in negotiations with several environmental groups for the purpose of reaching a consensus on issues relative to the reauthorization of the Marine Mammal Protection Act. The fishing industry groups involved represent substantial interests of Alaska residents fishing the Bering Sea and Gulf of Alaska, Northwest Indian Fisheries Commission members, various interests from Washington, Oregon and California as well as Seattle-based vessels fishing Alaska (which represent approximately 95 percent of the harvesting capacity of the U.S. Exclusive Economic Zone off the coast of Alaska). These fisheries interests have joined together for the purposes of promoting an eductional and scientific program which will (1) emphasize the relevant operative provisions of the Marine Mammal Protection Act, (2) stress the importance to the fishing community of avoiding, when possible, interactions with marine mammals which lead to incidental captures or unnecessary killings, (3) improve the state of knowledge of marine mammal populations and trends in their abundance, (4) expand the collection of fisheries/marine mammal interaction data and establish a system to verify incidental catches of marine mammals, and (5) establish a permit system to allow continued fishing operations including the taking of marine mammals incidental to domestic commercial fishing operations.

DESCRIPTION OF THE INDUSTRY AFFECTED

Two west-coast associations are holders of record for the present General Permits required for vessels operating in association with Marine Mammals. These permits, which expire on 31 December 1988, cover the areas including all of the waters off the states of Alaska, Washington, Oregon and California. All vessels involved in nearly every fishery in the state waters and the United States' EEZ adjacent to Alaska, Washington, Oregon and California are fishing under the umbrella of these two permits. East coast and Gulf of Mexico fisheries have substantially different interests; thus, this testimony is addressing west coast and Alaska concerns only.

The fisheries included under the General Permit held by the North Pacific Fishing Vessel Owners' Association alone represent the largest segment of the nation's fishing industry employing an estimated 70,000 persons directly on approximately 14,000 fishing vessels. The annual ex-vessel value of these fisheries is estimated to exceed $1.3 billion. The annual wholesale value from these fisheries products exceeds $3 billion. The value-added figures resulting from processing and distribution to the retail level exceeds $4.5 billion. In addition to these direct economic benefits, the processing, distribution and support industries are affected by the operations of this fleet, but an accurate value cannot be estimated. Nation-wide, the retail-level value of fisheries affected through the Marine Mammal Protection Act exceeds $28 billion annually. This industry is of great importance to the nation and its continued operation is critical.

MARINE MAMMAL STATUS NOT ATTRIBUTABLE TO FISHERIES

Because of a severe lack of data, interactions between commercial fishing operations and marine mammals, and interactions between marine mammals and other marine mammals are not well understood. Certain unavoidable interactions, however, are known to exist. The best documented incidental takes are those for the extensive foreign fishing operations and U.S./Joint Venture operations which have occurred off the coast of the contiguous Pacific states and Alaska. Data for these fisheries indicate that they have insufficient incidental kills to have any significant influence on population trends for marine mammals in these regions. For instance, the total take by trawlers (U.S. and foreign) of Northern sea lions in the Unamak Pass region (an area of concern for Northern sea lions) constitutes an annual mortality of less than 0.2 percent of the population.

In addition to this unintentional, incidental taking, the Marine Mammal Protection Act and National Marine Fisheries Service regulations allow for the lawful lethal take of marine mammals in extremely limited circumstances to protect catches, fishing gear and personnel. The number of animals intentionally killed under the present permit process is estimated to be quite small. The combined level of incidental take and intentional lethal take by U.S. fisheries, however, is currently unknown, but factors such as disease, habitat modification and predation by other mammals (such as killer whales) are significant in explaining the decline of some of the population stocks of seals and sea lions.

We are aware of reports of intentional shooting of marine mammals by various ocean user groups outside of the permit structure and this must be a serious concern to both the environmental and fisheries leadership. These unlawful killings are enforcement and education problems that need to be addressed by the fishing industry and government. These unlawful takes are also not related to fishery interaction and are avoidable.

Industry representatives presenting this testimony who have been involved with discussions with the environmental community support rational management of all marine living resources, including marine mammals. We acknowledge concern that marine mammal and fish populations should be maintained at viable and productive levels. We are convinced that fishing activities can be conducted in their normal manner and areas without having significant impact on marine mammal populations, although a small number of occasional kills to protect catches, fishing gear and personnel are necessary. These permitted kills appear to present no significant impact on the marine mammal populations. Industry leaders are convinced that current unlawful kills, however, can be significantly reduced and that fishing practices can continue and marine mammal population stocks maintained at healthy states. In order to achieve this goal, however, the fishing industry, environmental community and government must join in an accelerated and dedicated program of education, research and management. Society's goals of having a strong domestic fishing industry and at the same time maintaining healthy populations of marine mammals can be achieved, but only with the support of Congress during this reauthorization process.

LEGISLATIVE AND ADMINISTRATIVE REMEDIES

A "coalition" involving major environmental group leaders and substantial segments of the commercial fishing industry have been meeting to develop possible consensus on amendments to the Marine Mammal Protection Act (MMPA) and the Magnuson Fisheries Conservation and Management Act (MFCMA) which would allow continued fishing operations and bring the two statutes into parity with one another. This cooperative approach to achieve a workable amendment package is continuing and has resulted in agreement on most of the issues involved. Some details (discussed below) remain to be agreed upon, but the substance of an agreement is in place. The proposal offered by fishing industry and environmental community representatives includes the following approach to developing rational, long-term management for the conservation of marine living resources while avoiding distruption of commercial fishing:

A. Fishing industry and environmental community representatives have adopted a joint statement of goals to include a commitment by both parties to cooperate with one another and with NMFS in acquiring and analysing data upon which conservation of marine mammals can be based. In addition, the statement of goals will include a commitment to reduce fishing-related and unlawful mortalities to the lowest levels practicable. The long-term goal is the establishment of comprehensive, ecosystem conservation plans on a regional basis.

B. The agreement includes the design and implementation of a permitting system to allow for the "taking" of marine mammals incidental to domestic commercial fishing operations, including species designated as "depleted" or treated as "de factor depleted" by NMFS. The limited exemption for the intentional taking of marine mammals under existing permits has been adopted for those populations showing an increase in numbers.

The issue of intentional taking of declining species, predominately the Northern sea lion, which is currently allowed under the regulations for the limited purpose of protecting catch, fishing gear and personnel remains to be resolved. The fishing industry approach is to establish a procedure based on the legitimate goal of reducing these mortalities by phasing in the prohibition. The industry negotiators have offered to eliminate the exemption for all Alaska fisheries except for the Alaska salmon gillnet fishery. The reason for this is simply that these fishermen, often in remote locations of Alaska, have continuously operated under the permits allowing such takings. Time is needed to educate these fishermen that such takings will become illegal. To impose the restriction (which involves a relatively small number of mortalities) on these fisheries before the benefit of an industry-supported education program will not totally eliminate the takings, but will make this limited protection a crime. A proposal was made to phase in the prohibition on intentional takings to protect catch, fishing gear and personnel over the three-year term of this agreement. The industry is committed to reducing all mortalities, but time is needed to change an attitude that has prevailed from long before ena[illegible] of the MMPA and is presently lawful under the Act. For example, a salmon gillnet opening may last for only twelve hours. If a fisherman (whose annual income may be only about $7,000) in a twelve-hour fishery is faced with a sea lion which attacks his catch and net, he expects to lose not only his $3500 gillnet, but also his livelihood for the season. He will most likely take the course of action which has always been available to him and lethally deter the animal from his catch and fishing gear. The number of animal mortalities from this source appear to be very small, but the fisherman should retain the right to use such force in protection of his livelihood.

The National Marine Fisheries Service through a process similar to the present NEPA scoping procedure will, based on evidence from the public, establish a clear list of those fisheries which require marine mammal permits (Letters of Exemption) and those fisheries (such as Alaska king and Tanner crab and bottomfish longlining) which have such a rare occurrence of lethal interactions that no permits are required.

Reporting requirements under the proposed Letters and Exemption form a significant part of the present agreement. Data collected through a mandatory reporting system would be compiled and made available to NMFS by an independent, non-Federal Government organization. NMFS would retain enforcement authority.

C. The industry has begun and will expand an education program designed to increase the awareness of industry people regarding marine mammals issues.

Initially, this program will address the need to eliminate unlawful lethal takes by various user groups of all marine mammals (an activity that is opposed by industry leaders and is NOT a fishery interaction), to expand awareness of the operative provisions of the MMPA and to increase knowledge regarding population stocks which are declining in numbers. The fishing industry, environmental community and government would establish agreed-upon levels of participation by each in the design and implementation of a long-range education program.

D. The parties agree to the establishment of a Population Status Review Committee to allow scientists from the commercial fishing industry and environmental community to review and advise on all petitions for a change in the legal status of any marine mammal.

E. A revised permit process to develop an effective reporting system under the Letters of Exemption to achieve an effective data gathering information system is proposed. In addition, verification procedures are recommended to be applied where the need is clearly established. Several types of verification procedures are available. The parties to these negotiations have agreed to some form of vessel observers as a verification method. Details of how this observer program will function remain to be added to the agreement. The observer program will require federal support for funding, management under NMFS and a procedure to indemnify vessel owner/operators for liability for the observer. Industry and environmental representatives agreed that any observer program should be a marine resource program collecting data relative to any and all living marine resources, not just for fish or for marine mammals. There is further agreement that during the intial years of the program, emphasis may be placed on gathering marine mammal data through this program.

F. During each step of the negotiations leading to this agreement, we found that the tremendous lack of data (except the trawler data mentioned above) hampered decision-making efforts on both sides. Thus, the industry and environmental community place high priority on strengthening research efforts beginning in calendar year 1989. Without greatly increased research efforts through NMFS and the user groups, planning and conservation efforts appear fruitless. The industry commits its support for research programs and investigation of funding potentials. Through research and improved data gathering programs suggested by the industry, questions presently unanswered about marine mammal interactions should be resolved. Congress, therefore, should appropriate adequate funds for the purpose of research through this reauthorization process. The research function may appear expensive, but the time has come to make up for past deficiencies and make this critical research component viable.

G. Development of a comprehensive Marine Mammals Conservation Plan is deemed appropriate by the commercial fishing industry spokespersons. This plan, developed through NMFS, would be based on a regional concept compatible with current fisheries practices and will be based on ecosystem management principles. This planning process can begin only after an adequate data base is in place. Meanwhile, however, NMFS should look at developing "Recovery Plans" which address the issue of organizing efforts in an efficient manner to determine the causes of population trends and appropriate methods, if any are needed, of helping the declining population stocks to recover. This plan must be based on sound data.

This proposal and commitment by industry and environmental group representatives envisions a cooperative effort with the industry, environmental community and NMFS and is based on a rational three-year time line.

To solve the immediate problem of allowing the industry to legally operate following 31 December 1988 (should the species be designated as depleted and NMFS continue its present interpretation of the Act), requires a prompt, narrowly defined solution. The parties to these negotiations highly recommend that Congress enact amendments to the Marine Mammal Protection Act and the Magnuson Fisheries Conservation and Management Act, as appropriate, and delegate the Commerce Department authority to promulgate needed regulations under its discretion to implement the terms of the agreement between industry and environmental group representatives. In addition, Congress needs to provide adequate funding to support the various components of this program. Without proper funding, little can be achieved.

The commercial fishing industry and major environmental groups have agreed to continue close dialogue during this three-year period with a view toward reaching a consensus position on long-term cooperative strategies for the protection of marine mammals, without causing major disruption and hardship among various users.

IMPACTS OF LAW ON INDUSTRY AND THE NATION

Under the Marine Mammal Protection Act of 1972 (hereinafter referred to as the Act or MMPA), section 101(a)(4)(A), Congress recognized the value of U.S. commercial fishing to the nation and created exemptions to the moratorium provisions. Small incidental takes in conjunction with commercial fishing operations were specifically authorized, provided that the species or population stocks affected were not listed as "depleted, threatened or endangered." MMPA, section 101(a)(4)(A): During any period of five consecutive years, the Secretary shall allow the incidental, but not the intentional taking, by citizens of the United States while engaging in commercial fishing operations, of small numbers of marine mammals of a species or population stock that is not depleted. . . .

Section 104 of the MMPA also authorizes the Secretary to issue permits for intentional and incidental taking of marine mammals: "(a) The Secretary may issue permits which authorize the taking or importation of any marine mammal." Issuance of the General Permits must be consistent with regulations promulgated under Section 103 and with the requirements of Section 101 of the Act (Section 104(h)). The permits now held for the west coast and Alaska were issued under Section 104.

Partially as a result of recent appellate court decisions, the National Marine Fisheries Service (NMFS) has interpreted the Act in such a manner that NMFS has publicly announced that no permits under Section 104 may be issued. The reason stated for this interpretation is simply that NMFS is unable to determine the Optimum Sustainable Populations of most marine mammals found off coasts of the U.S. Thus, NMFS states that it must treat most species as depleted regardless of existing population dynamics and deny General Permit applications. A NMFS status of population stocks report is expected in late May 1988.

Species and population stocks viewed as affected by fishing operations off the coast of Alaska which present the greatest difficulties at this time are the following:

Northern (Stellar) sea lions—*Eumetopias jubatus*

Northern fur seals—*Callorhinus ursinus*

Harbor seals—*Phoca vitulina*

(The California sea lion populations are increasing rapidly and appear healthy. Even these, however, may be treated as "depleted" under present NMFS interpretations.)

Administrators at NMFS have indicated that a designation as "depleted" for the northern seal lion and northern fur sea is possible during calendar year 1988. Such a designation could have immediate and far-reaching negative impacts on the commercial fishing industry and the nation's economy unless legislative changes are made. Denial of the General Permits (Section 104) and the inappropriate nature of the Small Take Permits (Section 101) for most of the west coast and Alaska fisheries is tantamount to making all fishing illegal or at high personal risk. The small take permits, however, do appear to be appropriate and sufficient for each coast and gulf coast fisheries. The loss of revenue, loss of employment and decrease in the available food supply for the nation should the industry be unable to fish, despite the lack of any documented scientific evidence that can associate the status of relevant marine mammal populations with fishing activities, is a very serious social question that Congress and our nation must face. Congress also must face the issue of funding to meet these societal needs. Obviously, the interests of both groups require your attention and a balance needs to be achieved to ensure the continuation of fishing activities consisent with the conservation needs of both fish and marine mammals.

NO AFFECTED MARINE MAMMALS DESIGNATED DEPLETED

At this time none of the species concerned has been designated "depleted, threatened or endangered" by the Secretary under the procedures of the Marine Mammal Protection Act. The Department of Commerce, National Marine Fisheries Service, however, has established that the populations of the northern sea lion and northern fur seal have decreased and NMFS has begun the process of recommending that these two species be declared "depleted." The term "depleted" is established in reference to the Act's definition of Optimum Sustainable Population:

Section 3(1): The term "depletion" or "depleted" means any case in which—(A) the Secretary, . . . determines that a species or population stock is below its optimum sustainable population;. . . Section 3(8): The term "optimum sustainable population" means, with respect to any population stock, the number of animals which will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.

A finding of "depleted," therefore, requires a determination of the "carrying capacity of the habitat." Scientific evidence exists to establish that the carrrying capacity of the habitat for marine mammals is cyclical. Potentially, the carrying capacity (for any number of reasons) for the Stellar sea lion and northern fur seal populations is at a lower level than previously believed. Further evidence may establish that although the number of these animals has declined, they are not in a "depleted status" in relation to the carrying capacity of the habitat. NMFS marine mammologists have not established the actual carrying capacity of the habitat. Lacking such a determination, the species cannot properly be declared depleted under the language of the Act and permits should be issued. In any event, recognition is needed that the evidence shows that these problems are not a direct result of commercial fisheries and allow the industry to continue.

Assuming, *arguendo,* that either or both of these species is declared "depleted," the MMPA appears inflexible on the issuance of General Permits involving the possible taking of depleted species:

MMPA 101(a)(3)(B): Except for scientific research purposes as provided for in paragraph (1) of this subsection, during the moratorium no permit may be issued for the taking of any marine mammals which has been designated by the Secretary as depleted. . . .

[Section 104 General Permits must be in compliance with Section 101].

Thus, if the northern fur seall and northern sea lion were designated as depleted under the Act, or if NMFS maintains is present interpretation, no General Permit may issue. If such a situation arises, some NMFS Administrators are of the opinion that the *entire fleet* operating off the west coast and Alaska will have to cease fishing operations or will be in violation of the Act because of *potential* interaction with depleted species. Such a harsh and economically devastating result was not intended by Congress.

If such a drastic result occurs, the industry, region and nation will face a crisis throughout the seafood industry of a magnitude never before encountered. NMFS and the Congress should act promptly to prevent such an occurrence by aligning the MFCMA and MMPA on an equal basis.

FISHERIES NOT INTERACTING WITH DEPLETED SPECIES SHOULD BE TREATED SEPARATELY

Under implementing regulations of NMFS, General Permits fall into five categories (50 CFR 216.24). The General Permit held by NPFVOA includes categories 1, 3, 4 and 5:

Category 1—Towed or Dragged Gear. Such as bottom or otter trawls, bottom pair trawls, multi-rig trawls and dredging gear.

Category 3—Encircling Gear, Purse Seining not involving the International Taking of Marine Mammals. Purse seining operations which do not intentionally encircle marine mammals.

Category 4—Stationary Gear. Operations utilizing gear such as traps, pots, weirs, and pound nets.

Category 5—Other Gear. Operations utilizing trolling, gill nets, hooks and line gear, and any gear not classified above.

These categories (primarily category 4, Stationary Gear and category 5, Other Gear) group together unlike fisheries which have distinctly different interactions with marine mammals. Some of the fisheries may interact with marine mammals, but *not* potentially interact with northern fur seals or northern sea lions. Others, such as the king and Tanner crab and bottomfish longline fisheries, may have extremely rare lethal interactions. Because of the General Permit requirements, however, these fisheries are unnaturally combined. This unnatural designation of categories should be changed to separate out those fisheries which are conducted without serious risk to the marine mammals designated as depleted. New categories should be adopted by regulation to separate longlining and trolling from net fishing operations such as gillnetting. Longline operations should be a separate category. In addition, those fisheries which have only rare lethal interactions should be identified and clearly exempted from all of the permit processes.

UNINTENTIONAL "TAKING"

None of the fisheries covered by the General Permits involve the "intentional" taking of marine mammals, except as allowed under NMFS regulations and as possibly included in the Act's definition of harassment. The Act defines "taking" too broadly by including all forms of harassment (section 3, (12)). The General Permits issued to NPFVOA were amended to prescribe limited types of "harassment" using authorized devices. The current level of lawful intentional takes appears to be quite small. Under NMFS regulations an intentional lethal take of a marine mammal is authorized only after all permitted means to deter the animal have been taken and failed, and then only to prevent depredation of catch, damaging of gear or causing personal injuiry. (See 50 CFR 216.24(d)(1)(ii) and (iii), (3)(ii) and (iii), (4)(ii) and (iii), 5(ii) and (iii)). The use of these non-injurious devices is a positive step which allows fishermen to frighten the marine mammals away from fishing gear which reduces or prevents serious injury or death to the protected animals. The use of these approved devices (whether a species is "depleted" or otherwise) should be exempted from the "taking" provisions of the Act and NMFS regulations, and officially recognized as appropriate methods of protecting the marine mammals from serious injury or death. An amendment to the Act should be proposed, if necessary.

SCIENTIFIC DATA INSUFFICIENT TO IDENTIFY COMMERCIAL FISHERIES IMPACTS

The National Marine Fisheries Service has an obligation under the Act to gather scientific data relating to marine mammals management. A review of the reports generated from the data collected on shore and off the coast of Alaska shows that the populations of northern fur seals and northern sea lions are declining in some areas. These reports, however, fail to establish the inter-relationship with this decline and operations of the commercial fisheries. National Marine Fisheries Service reports following studies of the populations of northern sea lions, for example, report the decline of these animals from 1956 to 1986. These authors state, "The causes of the reduced fecundity or survival of the northern sea lions are presently unknown, but there are several possibilities—desease, changes in prey resources, and the combined effects of these and other factors." NMFS marine mammal specialists state that the decline of the northern sea lion, for example, is not unique among pinnipeds. They recognize the marine mammal population numbers commonly follow a cycle, increasing and decreasing in relation to time and area. The causation factor remains difficult to identify, according to NMFS scientists.

NMFS data analyzed by industry scientists clearly show that there is no recognizable cause-and-effect relationship between the decline in marine ammmal populations and commercial fishing activities.

INDUSTRY-GENERATED DATA NEEDED

The inability of the scientific community to establish the impact of fisheries on these marine mammals is significant and the commercial fishing industry should be allowed to continue operations until such interactions are understood. The National Marine Fisheries Service has an affirmative obligation under the Act to collect and analyze data for marine mammals, but has failed to do so. In the absence of NMFS programs, however, the commercial fishing industry does have potential for collecting needed data to effectively determine the impacts of commercial fishing on certain species and population stocks of marine mammals. Renewed efforts and appropriate funding for NMFS research, however, is preferred.

Current permit provisions require that any marine mammal killed will be discarded overboard. This requirement should be changed to allow scientific study of these animals. Indications are that disease is playing a substantial role in reducing the numbers of some species. Careful scientific study of animals will enhance our knowledge of the species, including food patterns, disease and other factors which are impacting on these population stocks.

CONCLUSION

The fishing industry and environmental community representatives are concerned that a prompt and acceptable solution to the questions presented herein be achieved. This solution, we believe, must recognize the needs of the commercial fishing industry to continue operations with economic efficiency, yet respect the desires of the environmentalist community while providing for the well-being of the marine living resources involved. To achieve this solution, the industry represented by this testimony is prepared to provide its assistance in establishing a rational program to provide improved education, increased data collection and long-range planning under the agreement reached with the environmental community. Only with strong support from Congress can these goals be reached.

Senator BREAUX. I thank the panel for being here and for your presentations and the good work that you have done.

I am a little disappointed that no one has explained in detail to the Committee what the provisions of the agreement are. You have all described all the work that you did and the fact that it is needed, but no one has explained to me or the members of the Committee exactly what is contained in the agreement that we are here to consider.

I have the agreement right here, and I would ask unanimous consent that the document be made part of the record.

We are talking about continuing the general permits, continuing the small-take exceptions, establishing a new rare-take exemption, and establishing new letters of exemption for fisheries which do not qualify for a general permit, small-take exception, or rare-take exemption.

The new letters of exemption would be issued for a three-year period, establish reporting requirements for fishermen, and place observers on board fishing vessels. Principal features of the agreement include indemnification of vessel owners, which is going to cause some real heartburn for some people; and funding by the Federal government, which is going to cause some heartburn for OMB and probably for our National Marine Fisheries Service.

No one said anything about several aspects of the agreement, but that is what we are here to talk about, right?

Let me ask you some questions.

Explain to the committee members—the Marine Mammal Protection Act already provides for some exemptions to the prohibition on taking of marine mammals. You can get general permits which allow fishermen to take marine mammals. You can get a small-take exception which allows fishermen to take marine mammals. Why is what we have in the current law not sufficient?

Mr. COWLES. Senator, the current law does not apply--it applies only to nondepleted species, and the depleted species fit into two categories, those that have been determined by NMFS to be depleted—and there are a couple of those now—and those that are de facto depleted. In the instance of the general permit, the depleted and de facto depleted species are not eligible for coverage by that permit.

With regard to the small take permit, the de facto depleted can be covered by the permit, at least as of last week when we heard the National Marine Fisheries Service testify. We may want to ask that question again of them today, but generally, depleted mammals taken in larger than very small numbers are not currently covered by the law.

Senator BREAUX. Okay. So the problem with the fishing industry now is that fishermen do not qualify for a general permit because some of the mammals taken are considered to be depleted. In addition, they do not qualify for small take permit because their take would be more than, I take it, negligible?

Mr. COWLES. That is right.

Senator BREAUX. More than a negligible impact. So you do not fit the two exemptions that we currently have.

Mr. COWLES. That is right.

Senator BREAUX. Now, is my understanding correct that we have some marine mammals that are considered to be depleted and we do not really know what their stock conditions are?

Mr. COWLES. That is right.

Senator BREAUX. No OSP has been determined for any of those stocks, but some court somewhere has said even though we do not know what their condition are, because we do not know, we are going to consider them to be depleted?

Mr. COWLES. They are considered the de facto depleted, where there is no OSP determination, and those fit into the same category for coverage under the current law with regard to the general permits. And those are the permits under which most commercial fishing operations, at least on the west coast, are being conducted.

Senator BREAUX. All right.

Part of the plan, as I understand it, is to put observers on American fishing vessels. You are talking in terms of a minimum 20 percent coverage, with 35 percent coverage possible in some more important and sensitive areas.

Mr. COWLES. That is correct.

Senator BREAUX. The proposal that you have before the committee says that it should be fully Federal funding. The estimates that we have seen range from $2½ million to perhaps $5 million.

National Marine Fisheries already has submitted their budget request for next year. If it comes out of their budget, it is going to mean we are going to have to cut about $5 million from somewhere else.

Now, is anyone going to recommend where we cut, or is anyone going to recommend the possible consideration of user fees by the industry to help pay for the observers?

Dr. ALVERSON. I think you have correctly interpreted this. We understand the dilemma of the budget problem, and I think it is not a new one, Senator. The obligations that we have seen under the MMPA, on the FCMA, have not been essentially dealt with effectively for a number of years, and there are just inadequate funds, essentially to obtain the data base. And we had a rather short time in terms of putting this agreement together, and we realize it does not dovetail very well with the budget process.

For better or worse, these are the costs that we have estimated are associated with this program, and it is not without some costs that we have been willing to bear on the part of the fishing industry which we see as close to a quarter of a million dollars now in terms of the commitment to share in terms of the education program and putting the information retrieval system into existence.

I think the most realistic number in terms of the observer program is probably between about $2 million and $2.4 million, but it is an essential part of the agreement from our standpoint.

Senator BREAUX. We have about, as I understand it, about $7 million in the Fishing Vessel and Gear Damage Compensation Fund which was paid for by a surcharge on foreign fishing fees.

Would anybody consider suggesting that that fund be tapped to pay for something like this?

Mr. COWLES. One of the things we talked about was various other sources. As Dr. Alverson has pointed out, these are living marine resource we are proposing, and one of the functions that they can perform is fisheries management observation so that that can be coupled with whatever current efforts there are for observers for fishery management purposes.

Also, we agreed to take a look at every possible source of funding. After all, we are in the position we are in not because of anything that anybody has done particularly but because of a lot of things that have not occurred, and there has been funding going into these programs, but because of the difficulty of this data collection effort, it has been real hard to find out the information that is necessary for NMFS to make management decisions. But we may have to ask for additional funding as well.

Senator BREAUX. Any questions on my right?

Senator Danforth we will recognize for the record. I also would ask unanimous consent that any of the members who were previously here or any members of the committee be permitted to ask or submit questions of the panel.

Senator Adams, any questions?

Senator ADAMS. Thank you, Mr. Chairman.

Gentlemen, I have had a long history with the Marine Mammal Protection Act, as have several of my colleagues here because I voted for its passage in 1972 as a Congressman, and I support its reauthorization.

I compliment you on the agreement that has been reached between the two sides. I echo the comments of the Chairman, which is that we are now willing to proceed as a committee with the outlines of the agreement, but the details have not been covered.

One of the concerns I have, Dr. Alverson, is that we have very few foreign fisheries within the 200 mile limit anymore which could be charged to pay for this, do we not?

Dr. ALVERSON. That is true in terms of direct fishery. We have a rather substantial joint venture operations which couples with foreign fishing activities.

Senator ADAMS. Well, fees assessed to J-V operations in reality are fees that will be paid by U.S. fishermen. So the Chairman's question of who is going to pay for implementing the agreement remains. We cannot send it off someplace else. Isn't it correct that it is going to have to come out of the industry, whether you call it a joint venture or whether you call it a U.S. fishery, if we are going to raise additional funds?

We have a very tight budget situation, and in this area, it is a tragedy because you have to rob Peter to pay Paul. We have had numerous hearings on enforcement and a number of other budget-related needs. I understand that this agreement provides a three-year permit extension in exchange for the creation of a data base. You are saying we need observers to create the data base, plus other items.

How are we going to pay for it?

I am trying to be certain that there is not an additional source, other than looking at the industry or getting a general appropriation that just says put more money in this area.

Do you have another one? If you have one, I think that is what the chairman's question is about, and it is mine.

Dr. ALVERSON. I understand, and I would like to make a very short comment.

First, as I said before, our industry is making a significant contribution to this.

Senator ADAMS. I understand. I am not critical of that. I just want to know how we are going to fund this $2 or $3 million.

Dr. ALVERSON. Second, we have looked at the concept of a user fee, but I think you should all be aware that the fishing industry particularly in the Pacific northwest, has fought its way from almost nowhere in about eight years to a rather substantial level, but now is in a very, very tight economic position because of fallen prices.

Senator ADAMS. I understand. I just mentioned that as the only one that has come up. What I am really asking you, Dr. Alverson, first, but any other member of the panel as well, is if you have suggestions as to how we might fund this.

Dr. ALVERSON. I think maybe we might look at some of the components of SK that is never used in terms of fisheries, where we receive rather substantial funds in terms of import fees, and were originally set aside for that purpose, as I understand.

Senator ADAMS. We would appreciate in written form any suggestions that you might have. I am supportive of your agreement, certainly, but we need to nail down the other parts of it.

I have a question now for Mr. Bricklemyer about Herschel, the Sea Lion. This has become quite an argument, at least in the Seattle area. All of us who have fished in the north Pacific are very familiar with nuisance animals or mammals. The problem is that they are not like a porpoise that is taken incidentally. A sea lion has a very specific purpose when it approaches a school of salmon, salmon traps, salmon in a net or otherwise. In this particular case, the sea lion runs the fish up against the dock and everybody watches. Those who want salmon stocks to increase look at Herschel and become concerned.

As I understand it under the agreement, the letters of exemption for dealing with this problem are to be issued by a private group as opposed to NMFS.

Are you supportive of that or do you think that is the way that it should be done? I would also like other panel members to comment because this is a different problem than the general taking of marine mammals incidentally to the catch. I want to protect this group of manmals but they are going to an area specifically because you have collected their food supply there whether it is a fishing net or whether it is up against the dock.

What do you think of the exemption letter system that we have now? In addition, do you want letters issued by a private group, or do you want it done by NMFS?

Mr. BRICKLEMYER. I think there are probably a couple components to your question. Let me first say that in the negotiations, the nuisance take, or the nuisance animal problem was not a subject.

Senator ADAMS. I just used Herschel because we are over to the Steller's problem and so on.

Mr. BRICKLEMYER. Right. So we did not really deal with the nuisance animal in our negotiations. A letter of exemption, as established in the agreement, would not be applicable to the problem with Herschel.

Our feeling was that there was not sufficient information to warrant any change in the current mechanism which would allow someone to come and get a waiver of the moratorium under the Act as it currently stands.

So the answer to the first component of your question is that Herschel was not dealt with in our agreement. That is why I separated it in my comments.

The second component, the point about the private agency issuing the letter of exemptions (even though not applicable to Herschel) is an important point because this private, non-Federal entity that we speak of in our agreement has only ministerial duties. It has no discretion whatsoever. The National Marine Fisheries sets up the categories, the fisheries involved.

Senator **Adams**. I understand. It is just that NMFS is responsible for data management and verification, and you have mentioned another group. It seems to me to be inefficient and I just wanted your comments. Do you think we should or shouldn't have a private group involved?

Mr. **Bricklemyer**. We definitely believe that the non-Federal entity that would just handle the data processing of the information reported by the fishermen is a good idea.

Senator **Adams**. All right.

You wanted to comment, Doctor.

Dr. **Alverson**. There are several reasons for that. One, we have looked at whether or not we should put a user fee in, and I do not think there was a great deal of argument against the user fee except there was a lot of suspicion that if it were made available, it would end up in the general fund and would never get back to the fisheries people, and they would not have it in their budget essentially to execute that particular part of the mission that is defined.

Secondly, it was a manner in which we felt industry could make an economic contribution to this. The industry provides the funding for this. NMFS provides the direction, and I think the general intention would be to turn it over to a quasi-state operation like the Pacific Marine Fisheries Commission.

Senator **Adams**. You use this as a funding mechanism.

Dr. **Alverson**. Yes.

Senator **Adams**. I understand.

Mr. Cowles?

Mr. **Cowles**. In addition, the states are going to have a role to play in this, and we are going to have to work closely with them. They issue renewal notices for fishermen for their licenses and for fishermen for their vessels, and we are looking at that as a possible vehicle for sending out application letters for these letters of exemption. It is also through the state collection mechanisms, there may very well be a way of getting that data back.

So it may be more efficient to deal with a private entity that can contract with the states and let NMFS do what NMFS does best in terms of the data management and the management decisions, once they have the data in hand.

Senator **Adams**. Thank you, Mr. Chairman, very much.

Thank you, gentlemen.

Senator **Breaux**. Let me ask a couple of follow-up questions.

Lee, your testimony discusses the value of this fishery in the northwest, and the numbers that we are talking about are incredible.

The fisheries included under the general permit held by the North Pacific Fishing Vessel Owners Association represents the largest segment of the nation's fishing industry, employing an estimated 70,000 persons, 14,000 fishing vessels. The annual ex-vessel value of the fisheries is estimated to exceed $1.3 billion, and the annual wholesale value from these fishery products exceeds $3 billion.

The value added figures resulting from processing and distribution to the retail level exceed $4.5 billion. And we are talking about trying to find $3 million to save this industry.

I think the point that we are trying to make is that we are talking about robbing Peter to pay Paul. Well, Peter is broke. You know, we can go rob him all we want, but there ain't a lot there.

You accurately cite these billion dollar numbers. Because of the incredible value of this fishery, we should not let it sink because we cannot find $3 million.

I am just throwing that possibility out. We have several options—we have got fishing funds all over this Congress. We have the Fisherman's Protective Act, the Fisherman's Contingency Fund, the Gear Damage Fund. All of these funds have been built up with user fees, some of which are not being used. But the money has not been diverted into the General Treasury. Some of it is sitting there.

I just make that point.

The other point is what happens to a species under this proposal like the northern fur seal which is now depleted and which this exemption would cover, if that status under the Endangered Species Act were changed to threatened? Would this plan still cover that? What is the difference between depleted and threatened or endangered under this agreement?

Mr. **Bean**. The practical difference is that the requirements of the Endangered Species Act would kick in. The Endangered Species Act, as you remember, in 1981 I believe it was, has a provision for issuing permits for incidental taking of threatened or endangered species. That was a provision added to the act in 1981 to take into account incidental takings through land development, but it is certainly equally applicable to incidental takings of this character.

Our agreement does not apply to marine mammals that are threatened or endangered because none of the fisheries of concern in our negotiations currently affects any marine mammals, so far as we know, that are threatened or endangered.

Your hypothetical is what if one of these becomes threatened or endangered in the future. We have not addressed that, although I would throw out for my own viewpoint that if the requirements for an incidental taking of a threatened or endangered species under the Endangered Species Act can be met, then I would regard that as satisfactory to authorize an incidental taking under both of these statutes. But this agreement does not specifically address that.

Senator **Breaux**. What is the practical difference between a species that is depleted versus a species that is threatened?

Mr. **Bean**. Well, a threatened category is, I believe, a much more imperiled category than a depleted species. A threatened species is one that is likely to become endangered in the foreseeable future.

A depleted species is merely one that is below its OSP, and that is a level well above the threatened category.

Senator BREAUX. You had better run that back.

I missed something.

Mr. BEAN. I may have misspoken. A depleted species is one that is below its OSP. that is a much higher level, I believe, than a threatened or endangered species, which is reduced well below that.

Senator BREAUX. All right.

Any other questions?

Senator Evans?

Senator EVANS. Just a couple of questions.

In this agreement you talk about a specific number of Steller's sea lions and northern fur seals per year as the take.

What happens if during the fishing season people who are out there fishing learn that you have taken the 1350 sea lions and the 50th northern fur seal? What happens to the fishing season?

Mr. BRICKLEMYER. Senator Evans, we dealt with that on page 13 and 14 of the agreement, and basically, it is that the mitigation measures which we have provided for would then be kicked in, and the National Marine Fisheries Service would have to ascertain what was necessary to prevent any further takes of those species if the cap had been reached.

Senator EVANS. Well, what——

Mr. BRICKLEMYER. Let me give you an example.

Senator EVANS. Because if you say that these are the limits and that you should not capture any more, and you reach the limits, and fishing is still going on, what other alternative is there other than to stop fishing?

Mr. BRICKLEMYER. Well, there will be a time lag in getting the information in and getting a compilation from the various vessels that are involved. But if, for example——

Senator EVANS. That avoids the question.

Mr. BRICKLEMYER. I was just going to say that that is part of the answer.

The answer, the example would be in the Shelikof Straits where there have been instances where large numbers of Steller's have been taken in a single trawl, and if that happened again, what would happen is that you would either move the fishery out of that area, or you would restrict the time of day for fishing because most Steller's are caught between 11:00 and 2:00 in the morning. So the idea is to mitigate the take and then in the following year you would try to seek a way to ascertain mechanisms that would prevent it from recurring.

Senator EVANS. When you say mitigate it, then, you are not saying that you would stop at 1350. Just that when you reach 1350, you would try to moderate the way in which fishing was carried out so that you did not take so many beyond that?

Mr. BRICKLEMYER. Well, the intention throughout our negotiations has been to not shut down the fishery, and so in this instance, what we would seek to do is to move the fishery from the area where the interaction that is causing the problem is occurring into an area where it would not cause that problem.

Senator Evans. When would you kick that in? Would you wait until you had reached the limit, or would you, as you were approaching the limit, when it looked like you are going to reach that limit before the fishing seasons were over for the year, would you start mitigating before you got there or how would you manage that?

Mr. Bricklemyer. Well, in the past, in instances where there are caps under the Magnuson Act and in the the tuna/dolphin situation, there can be some anticipation, that is, if fishing continues in the same manner in the same area you might reach your cap, and so as a precautionary measure, speaking for myself because we did not really discuss this in great detail during the negotiations, it might be prudent to begin your mitigation measures if it looked like you were going to hit your cap very shortly.

Senator Evans. Dr. Alverson?

Dr. Alverson. Senator, I think in practicality, in terms of the way the data collection system is designed, it is unlikely that you would have that number during a specific year because you report either on a seasonal or an annual basis, so the information base that you would collect is only likely to show you that probably at the end of the year.

During that year you will have collected a great deal of information of where these incidental captures are being taken, are they being taken in salmon fisheries, in a specific area, during a specific time period? Are they being taken in the trawl fisheries, as he said, in Shelikof Strait? Taking that data into account, one can probably make some adjustments in time area fishing activities in the next year which would then be designed to get the number down to specific quota design.

There is no intention as I understand it at the present time that any fishery would be closed down within a year because you are approaching that number, but you might look at manners in which you would adjust the fishery.

Senator Evans. But then if you are really not getting the figures until after the season is over, it is done just on an annual basis, the numbers per se do not really have a whole lot of meaning, at least for that year. You say you cannot take more than 1350, but when you add it all up in December or whenever all of the reports come in and it is 2,000, you cannot untake them.

Dr. Alverson. That is right, and I think that what you have is then a data base that says that we have a problem, and how do we carry out the fishery in the next several years to get the number down to the quota.

Senator Evans. All right.

Just one other question, Mr. Chairman. Back to Herschel; it is not just Herschel, but it is Herschel's brothers, sisters, nephews and everybody else that have collected there at the locks, and it may be a local problem, but I wonder, Mr. Bricklemyer, if there is not something better to do that is a little speedier and more effective than seeking some exemptions under the Act? It may be local, but believe me, I am getting hotter and hotter letters and more and more strident reactions every day in the paper when you see another picture of Herschel with a big salmon in his mouth, or one of his friends. It turns a whole lot of people in a direction that is not very healthy in terms of marine mammal protection.

I would suggest that maybe there is a more effective way to get at this than just seeking the exemption.

Mr. BRICKLEMYER. Well, I have not had the pleasure of reading the Washington Fish and Game report, and I do not know if it is out, resulting from the study of the effectiveness of barricade which was erected at the locks to stop the predation or at least mitigate it greatly.

What I did read in press reports was that with the unfortunate instance of it catching a couple sea lions and causing them to drown, it did reduce the predation of steelhead. So in this limited instance, it seems that there may be a technological way to stop the predation. This fix is short of modifying the locks, which of course might also decrease the amount of steel head that are being predated upon by sea lions.

As far as other instances, we have not been presented information, although we have asked repeatedly, to show us that there are significant problems. So right now we are dealing with Herschel at the Ballard Locks and the net seems to us to be a very reasonable way to try to mitigate the problem.

Senator EVANS. Well, it may have mitigated the problem by drowning the sea lions and reducing the sea lion population, which suggests that maybe taking is what might be effective.

Mr. BRICKLEMYER. I do not think that the two that were drowned—not to be argumentative—would probably really solve the problem. I think it was the barricade that reduced the take.

Senator BREAUX. Let me ask one last question.

What happens after three years to the three year agreement?

We are talking about the problem that we do not have enough data. It has been years that we have been collecting or supposedly collecting data. However, we still do not have the information to make OSP determinations.

This is a three year suggested program with observers.

Mr. COWLES. I will start off an answer, an attempt at an answer on that if we can go back to funding, too, for a minute. But in terms of that, we expect that if we do implement each of the elements of this proposal, you will have not only information from the observer program, but you will have research from NMFS on the population status and dynamics and biology, those things that NMFS needs to have in order to make—to develop the conservation plans and management plans, recovery plans.

We are also requiring under this agreement that NMFS put in place over the next three years a recovery plan a year for the most troubled mammal stocks, and those would be the fur seals and the Steller's and the harbor porpoises, so that after three years, what you will have is a good data collection base, you will have recovery plans and conservation plans under way, and we will have a lot better understanding of how we can actually work towards management and conservation of the mammal population.

At the end of that time we ought to be able to make better decisions on how many of these exemptions are necessary or if there is some other way to go back to another management scheme absent a permit and recording system.

Senator **Breaux**. We are going to be facing it in the next Congress is what you are saying.

Dr. **Alverson**. I would like to add to that, Senator. You know, I think it is very important that this group and the environmentalists and the fishing community jointly start thinking of what happens in three years.

We have two acts that have somewhat different objectives. They sometimes are in conflict with each other. They have different biological interpretations. We have different management actions that are coming from one part of the government vis-a-vis the others. You have a council managing one group and you have the NMFS managing another.

I think it is time to start thinking about regional resource management councils that look at the ecosystems, the marine mammals and the fish in a much broader sense than just looking at fish in one area, looking at marine mammals.

I do not think you can get there overnight. We have committed with the environmentalists to start looking at this concept and talking about this concept over the next three years. Hopefully we might have arrived at a recommendation at the end of that time that would look at centrally unifying the concept of resource management, environmental management into some general form that looked at it across the board in a more holistic way.

Senator **Breaux**. We are going to hear from the administration now. I want to thank you on behalf of the whole committee and certainly myself and to congratulate you all and the groups you represent for working together in trying to come up with some recommendations. The only way we are ever going to solve these problems is by working together, commercial and environmental groups and organizations, to come up with some plans to protect the environment. That includes preserving fishermen as well as the marine mammals that have to co-exist in that same area.

I think you all have done a good job, and it is certainly a starting point for us to base our decisions on.

Mr. **Bricklemyer**. Senator Breaux, may I say one thing more before we move?

Both sides are very committed to long-term planning. In that regard, we have scheduled annual meetings. We look at our accord here as a step towards really doing what we have been talking about for many years in the law; that is, trying to manage ecosystems comprehensively based upon information as opposed to emotion.

Senator **Breaux**. I want to invite you all down to the Gulf of Mexico.

I thank all of you, and this panel would be excused.

I would like to welcome the administration: Bill Evans, National Marine Fisheries Service; and Dr. Bill Fox, Commissioner, Marine Mammal Commission.

Gentlemen and ladies, we welcome you to our panel. You have heard the testimony from the previous panel. I would ask if you could summarize your testimony, and then we will proceed to questions.

Mr. Evans, we are glad to have you back.

STATEMENT OF WILLIAM E. EVANS, UNDER SECRETARY FOR OCEANS AND ATMOSPHERE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE, ACCOMPANIED BY EILEEN COONEY, OFFICE OF THE GENERAL COUNSEL; AND DR. NANCY FOSTER, PROTECTED RESOURCES OFFICE, NATIONAL MARINE FISHERIES SERVICE

Mr. EVANS. Thank you very much, Mr. Chairman, members of the committee. It is a pleasure to be here.

I have with me this morning sitting on my right side Eileen Cooney, who represents our general counsel; and Dr. Nancy Foster, who represents our Protected Resources Office in the National Marine Fisheries Service.

Last month the National Marine Fisheries Service testified before the committee on a number of issues related to the reauthorization of the Marine Mammal Protection Act. Today I would like to confine my remarks to the depletion issue.

Our immediate concern is the lack of authority to allow takes of depleted marine mammals incidental to commercial fishing. Unless this issue is resolved, the fishing industry will be faced with severe economic losses.

As recently interpreted by the United States Court of Appeals for the District of Columbia Circuit, the Marine Mammal Protection Act does not allow NOAA to issue an incidental permit for a species if there is a possibility a depleted species or a species of unknown status also would be taken during the fishing activity. This is true even if the taking would not significantly affect those species.

Unless the court's interpretation is judicially reversed or the Marine Mammal Protection Act is amended, NOAA will not be able to issue permits to any foreign and domestic fisheries that interact with marine mammals within the EEZ.

As the Assistant Administrator of NOAA for fisheries, I was an advocate of the group representing the commercial fishing interest and the environmental community to get together to work out solutions to these very complex problems. The fishing industry and the conservation community both recognize the seriousness of the problem and have recently provided Congress with a proposal that is acceptable to a wide range of interests.

NOAA believes that with some modification, the proposal is acceptable as a temporary solution of the current problems. It provides for the documentation of the nature and extent of interactions between commercial fishermen and marine mammals while allowing most domestic fisheries to continue.

Now I would like to point out where we believe the proposal should have some modification. In reference to foreign fishing, our major concern is that this proposal would not allow foreign fishermen to incidentally take marine mammals in the EEZ. Whether a marine mammal is taken by a foreign or domestic vessel should be irrelevant as long as the species taken are not disadvantaged.

Our inability to grant incidental take authority to foreign fishermen has disrupted and will continue to disrupt fisheries relations with other countries and also has a major effect on a number of Americans in the fisheries industry.

East coast fisheries is another issue. The proposal does not adequately account for east coast fisheries. We believe that any amendment should deal with the interactions between fishermen and marine mammals throughout the EEZ and not just on the west coast.

We would like some clarification on how the observer data will be used and believe that observers must be placed randomly and in sufficient numbers to provide the adequate coverage. This is a lesson that we well learned in dealing with the tuna/porpoise issue.

On the case of the indemnification of vessel operators which you mentioned, Mr. Chairman, we do not favor any sort of indemnification in cases of gross negligence or where it would reduce the incentive to insure the safety of an observer. The vessel operators should face their liability risks, take all reasonable steps to insure the safety of observers and procure insurance to guard against any residual risk as a cost of doing business.

The available population data that we have on a number of species are sparse. In fact, they are actually sparse for most of the pelagic species of marine mammals that we deal with, and OSP determinations based on these data would be vulnerable to legal challenge. We believe the proposed status review process should not be used unless there are sufficient data to make scientifically reliable determinations concerning OSP.

The amendment should clearly state that fishermen required to obtain a letter of exemption are subject to full penalties of the Marine Mammal Protection Act for fishing without a letter, regardless of whether marine mammals are encountered. The penalties for failure to report as required should be increased and also should apply to reporting of inaccurate data.

The roles and composition of a non-Federal authority for issuing exemptions and processing information should be clearly defined as well as the roles and responsibilities of all of the parties.

I would like to mention the fact that we do have the Marine Mammal Commission and its committee of scientific advisers who already handle some of the types of things that would be done by such a non-Federal authority.

Regarding the cost, several of the provisions in the proposal are costly and would require additional funds. Our Federal Marine Fishing Fee legislative proposal which we will be submitting to Congress shortly would generate revenue that could fund many of the provisions.

Another possibility may be to amend the Marine Mammal Protection Act to impose a fee on vessels issued a letter of exemption similar to the funding of the Magnuson Act Foreign Vessel Observer Program.

In reference to fur seals which were mentioned by Senator Stevens, some members of Congress have expressed some support for changes to the Native Subsistance Provision of the Marine Mammal Protection Act as it applies to the Pribilof fur seals. We would support changes if they can be enforced, and we will work with Congress if it decides to address this issue.

In conclusion, the proposed three-year limited exemption provides a foundation for developing and making needed changes to the act. We are looking forward to working with the Congress, fishing industry, conservation community and other interested parties to develop the best possible short- and long-term changes to the Marine Mammal Protection Act that will allow the rational management of our marine resources.

Thank you very much for this opportunity.

[The statement follows:]

STATEMENT OF WILLIAM E. EVANS, UNDER SECRETARY OF COMMERCE FOR OCEANS AND ATMOSPHERE, AND ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

Mr. Chairman and members of the committee, I am William E. Evans, the Under Secretary of Commerce for Oceans and Atmosphere and the Administrator of the National Oceanic and Atmospheric Administration (NOAA).

Last month Mr. James E. Douglas, Jr., NOAA's Deputy Assistant Administrator for Fisheries, provided the Committee with the Department's views on a number of issues related to the reauthorization of the Marine Mammal Protection Act (MMPA). On May 10, 1988, I reaffirmed most of Mr. Douglas' testimony and added my support to a joint effort by the fishing industry and environmental community to address some of the very complicated issues being considered before the House Subcommittee on Fisheries and Wildlife Conservation and the Environment. Today I will confine my remarks to the depletion issue. As Mr. Douglas stated last month, the area of immediate concern is the lack of authority to allow takes of depleted marine mammals incidental to commercial fishing operations. Unless this issue is resolved, the fishing industry could be faced with severe economic losses.

Under the MMPA, a species is considered depleted if it is below its optimum sustainable population (OSP) level. Takes from depleted population are allowed only under limited circumstances, including subsistence by Native Alaskans, small taking incidental to activities other than commercial fishing, and scientific research. No taking of depleted species is allowed incidental to commercial fishing. Gathering data to make determinations of the status of species with respect to OSP is very costly and time consuming. Thus we are not able to make valid scientific determinations regarding depletion for most species of marine mammals in a timely manner. If a species' status relative to its OSP cannot be determined, under the MMPA, as judicially interpreted, permits to take that species incidental to commercial fishing cannot be issued. This is true even if the taking would not significantly affect the biological status of the population.

NOAA has interpreted its authority under the MMPA to include discretion to issue permits for incidental taking of the populations covered by the permit are within OSP, without proving that all other species that might be taken are also within OSP. However, in a recent decision involving a permit allowing a take of Dall's porpoise incidental to the Japanese slamon fishery, *Kokechik Fishermen's Association v. Secretary of Commerce*, the United States Court of Appeals for the District of Columbia rejected NOAA's interpretation. In a two to one decision, the Court ruled that NMFS did not have the authority to issue a permit for Dall's porpoise since other marine mammals (such as the Commodore Island fur seal), which were not demonstrably at OSP, also were likely to be taken.

Unless this decision is overturned or Congress amends the Act, NOAA may not be able to renew the general permits to the U.S. domestic fishing industry that expire at the end of 1988 because depleted species or species of unknown status might be taken. NOAA's National Marine Fisheries Service has begun the administrative process necessary to consider the reissuance of the general permits, and a range of alternatives is being evaluated in a draft environmental impact statement. However, some of these alternatives could not be implemented under the Court of Appeals interpretation of existing law.

The fishing industry and the conservation community both recognize the seriousness of the problem and have been working to develop a solution acceptable to all. Recently they provided Congress with a legislative proposal that would amend the MMPA to provide NOAA with greater latitude in managing populaitons of marine mammals.

I would like to applaud their efforts in formulating a proposal that would allow commercial fisheries to continue to operate while providing adequate protection to marine mammals. We believe that this proposal provides an excellent foundation for addressing badly needed changes to the MMPA.

Starting January 1, 1989, this proposal, as I understand it, would provide a limited three-year exemption from certain prohibitions of the MMPA. During this time NOAA would obtain and analyze data on the types and extent of interactions between fisheries and marine mammals. Fishermen would have to obtain a letter of exemption each year, provide reports on interactions with marine mammals, and carry an observer when requested. A non-federal, centralized authority would be established for issuing the letters of exemption, processing information and making data available. An important part of this proposal is a program to inform user groups of the operative provisions of the MMPA. This education program would be undertaken by the industry, conservation community, and Government and initially would focus on fisheries. The procedure used in making OSP determinations would be changed to provide for incrased public participation. There are provisions for citizen suits against alleged violators. Verification of the kinds and extent of interactions would be obtained by education programs, interview data, and observations from the shore, patrol vessels, and from observers aboard fishing vessels. A program would be developed for the acquisition, compilation, and analysis of data concerning marine mammals and the marine environment. Research efforts would be directed toward developing the groundwork for integrated plans for regional conservation of marine mammals and fisheries that would be implemented at the end of the three-year exemption. These conservation efforts must be consistent with the MMPA and the Magnuson Fishery Conservation and Management Act. Finally, there are provisions to use recovery plans and habitat protection zones to protect and conserve marine mammals and their ecosystems.

The Department believes that, with some modifications, the proposals is acceptable as a temporary solution to current problems. It provides for the documentation of the nature and extent of interactions between commercial fishermen and marine mammals, while allowing most domestic fisheries to continue to operate. But, what is needed is a long-term solution that will allow for the rational management of all marine resources that are affected by man's activities.

Now I would like to point out where we believe the proposal should be modified.

FOREIGN FISHING

Our major concern with the proposal is that it would not allow exemptions for foreign fishermen who incidentally take marine mammals in the U.S. Exclusive Economic Zone (EEZ). Indeed, the primary reason we are considering this proposal to amend the MMPA stems from the Court of Appeals decision invalidating the incidental take permit issued to the Japanese salmon fishery.

There is no rational basis under the MMPA or under the proposal before us to discriminate between domestic fishermen and foreign fishermen in granting a three-year limited exemption to the incidental take provisions. The manifest objective of the MMPA is to conserve marine mammals that interact with man's activities. Whether a marine mammal is taken by a foreign vessel or a domestic vessel is irrelevant as long as the species taken is not disadvantaged. These determinations have been made for the marine mammals taken in the Japanese fishery, and probably can be made for those numbers that would be taken in the few remaining foreign fisheries allowed to operate in our EEZ. To limit the exemption to domestic fishermen only, without any apparent conservation reason, allows the MMPA to be used for purposes inappropirate to its objectives.

Moreover, the inability to grant incidental take authority to foreign fishermen has already disrupted relations concerning fishery matters with Japan, Poland, the Netherlands, and the German Democratic Republic. Discriminating against foreign countries could also disrupt our current efforts to negotiate a comprehensive fishing agreement with the Soviet Union.

We, therefore, could not support any amendment to the MMPA authorizing exemptions unless it provides the same consideration to foreign fishermen as it does U.S. fishermen.

EAST COAST FISHERIES

The proposal does not adequately cover east coast fisheries. Any amendment to the MMPA must provide for the documentation of interactions between fishermen and marine mammals throughout the entire EEZ, not just the west coast.

OBSERVERS

We agree that observers will be necessary. However, what the observer data would be used for must be clearly specified. In addition, any amendment must allow for the random placement of observers. Further, a sufficient number of observers must be deployed to ensure adequate coverage. Any plan for using observers must be reviewed to determine that the data will be amenable to performing the necessary statistical analyses.

INDEMNIFICATION OF VESSEL OPERATORS AND OWNERS

The proposal states that the conservation community and the fishing industry will seek an amendment indemnifying vessel operators from liability resulting from onboard observers. It is unclear to what extent and for what types of actions such an indemnification provision would apply. We are opposed to any sort of indemnification in cases of intentional torts or gross negligance on the part of vessel operators or crew. Nor do we favor indemnification if it would reduce a vessel owner's incentive to ensure the safety of an observer. We also are concerned with the costs of indemnification. It is not the role of the Federal Government to indemnify vessel operators; facing a liability risk, taking all reasonable steps to ensure an observer's safety, and procuring insurance to guard against any residual risk should be part of the operator's cost of doing business. If the U.S. government is forced to be an indemnitor for injuries to U.S. observers in one of the most hazardous professions, then additional appropriations would undoubtedly be necessary.

POPULATION STATUS REVIEW PROCESS

We believe that the population status review process described in the proposal would be an improvement over the existing procedures. However, we cannot ignore the fact that the available population data are sparse for most species and OSP determinations based on these data would be vulnerable to legal challenge. This process should not be used unless there are sufficient data to make scientifically reliable determinations concerning OSP. We believe that until adequate data are available we should focus on developing and implementing management plans for marine mammals where interactions with man's activities are most crucial. Such plans would focus on controlling interactions between marine mammals and marine user groups.

ENFORCEMENT

The proposals would subject vessels/operators fishing without a letter of exemption to the full penalties of the MMPA's prohibitions on taking of marine mammals and would establish penalties for any failure to report data.

This proposal is ambiguous. Any amendment should clearly state that a fisherman who is required to have a letter of exemption is subject to the full penalties of the MMPA for fishing without such letter, regardless of whether marine mammals are encountered.

Additionally, the penalties that would be established for a failure to report are inadequate. Not only must the reporting requirement be implemented in the least burdensome manner possible but there must be a strong incentive to file reports in a timely and accurate manner. Higher fines should be set not only for failing to report but for failing to report accurately. Refusal to issue a letter of exemption for failure to report (the equivalent of a permit sanction) should be a remedy of last resort, since it would mean the fisherman could not fish legally.

We strongly object to amending the MMPA to allow citizens to initiate actions against individual fishermen if NOAA fails to commence administrative proceedings after 60 days' notice. Prosecution of persons who violate Federal law is inherently a governmental function.

LETTER OF EXEMPTION

The role of the non-federal centralized authority of issuing letters of exemption and processing information should be specified in greater detail. We have no objection to creating such a body, but we want to be sure that its composition as well as the roles and responsibilities of all involved are clearly defined. We are also concerned with the timing of establishing this body before January 1, 1989, when letters of exemption are to be sent.

Finally several of the provisions in this proposal appear to be very costly. We do not have adequate funds to carry them out in addition to our current activities. Our revised Federal Marine Fishing Fee legislative proposal, which we will be submitting to the Congress shortly, would generate revenues that could fund many of the provisions. Another alternative which could be considered is the imposition of a fee on vessels issued a letter of exemption, similar to the Magnuson Act foreign vessel observer program.

As I stated earlier, the three-year limited exemption proposed by the fishing industry and conservation community provides a foundation for developing and making some badly needed changes to the MMPA. We are looking forward to working with the fishing industry, the conservation community, the Congress, other Federal agencies and other interested parties to develop the best possible short-term and long-term changes to the MMPA to help us use our marine resources wisely.

SALE OF FUR SEAL SKINS TAKEN IN THE SUBSISTENCE HARVEST

Aleut residents of the Pribilof Islands want to sell fur seal skins taken in their annual subsistence harvest. Under the MMPA, by-products of the subsistence harvest cannot be sold unless first made into authentic articles of native handicraft. However, the Aleuts want to sell raw skins to fur processors in the U.S. and abroad.

The purpose of the MMPA's prohibition on commercial sale of subsistence harvest by-products is to limit the take of marine mammals to only those needed for legitimate subsistence and handicraft uses. Sale of raw skins may provide additional incentive to harvest the seals beyond subsistence needs. Further, other Native Alaskans might seek to sell subsistence by-products such as ivory and teeth that were not made into traditional handicraft. Changes to the Native subsistence provisions of the Act would be acceptable to NOAA if the take remained truly for subsistence and if it could be adequately enforced. We will be happy to work with the Congress if it decides to address this issue.

Thank you for this opportunity to provide our comments on some excellent work by our colleagues in the fishing industry and conservation community. I will try to answer any questions that you may have.

Senator BREAUX. Thank you.

Dr. Fox.

STATEMENT OF DR. WILLIAM W. FOX, JR., COMMISSIONER, MARINE MAMMAL COMMISSION, ACCOMPANIED BY ROBERT J. HOFMAN, PH.D., SCIENTIFIC PROGRAM DIRECTOR

Dr. FOX. Thank you, Mr. Chairman, members of the committee. My name is William Fox. I have with me Dr. Robert Hofman, who is Scientific Program Director of the Commission in case I get questions on which I need additional detail.

I understand that you are particularly interested in our views on the incidental take of depleted species and populations of marine mammals in domestic fisheries. The Marine Mammal Protection Act prohibits the taking of marine mammals from depleted species and population stocks except in three instances, as the committee is aware.

It prevents taking to restore or enhance protection of depleted species and population stocks. It also precludes the issuance of permits to authorize the take of depleted species and population stocks incidental to commercial fishing operations even if such take would have no significant adverse effects on those species or stocks.

The problem of takes incidental to commercial fisheries has been further complicated by the recent court decision involving the Kokechik Fishermen's Association. In that case, it was found that the National Marine Fisheries Service cannot issue a permit to take nondepleted species if it is possible that even one animal from a depleted species or population stock might reasonably be expected to be taken.

The Commission believes that the current prohibition on the taking of depleted species and population stocks should be changed to permit taking in limited circumstances. For example, it would be appropriate to allow the taking of depleted species and population stocks when the taking would help restore the species or stock to its optimum sustainable population level.

It would also be appropriate in cases where the prohibition on taking has significant adverse effects on fisheries or other human activities and the level of taking would not significantly affect recovery of the species or population stock.

Thus, we suggest that you consider amending the act to provide authority for allowing the take of depleted species and population stocks in certain circumstances while providing for the education programs, observer programs and recovery plans recommended by the conservation community and the fishing industry.

Representatives of the conservation community and fishing industry are to be commended for the document which they have put before you on this issue. It bespeaks considerable hard work and thought. In their proposal they call for a three-year special exemption from the prohibition on the taking of depleted species and population stocks in order to acquire and analyze data on the types, levels and implications of marine mammal/fisheries interactions. We have reservations about some parts of the proposal, but think the approach has much to offer.

The proposal recognizes that there is often insufficient information to evaluate the nature and extent of interactions between fisheries and marine mammals and the impact of these interactions on both the affected fisheries and marine mammal populations.

Among other things, it recommends an education program to insure that fishermen are fully aware of reporting and other requirements under the Marine Mammal Protection Act.

It also calls for an observer program to verify the reliability of fishermen's reports concerning interactions with marine mammals.

In addition, the proposal envisions developing and implementing recovery plans for species and population stocks that are depleted or of uncertain status.

While impressed with the effort, we have questions about certain aspects of the proposal. As we read it, the proposal recommends that a non-Federal authority issue letters of exemption and maintain reported data in a publicly available data base.

It also recommends that the education and reporting programs be phased in so that 40 percent, 60 percent and then 100 percent of the affected vessels and operators would receive letters of exemption and begin reporting in the first, second and third years of the program respectively.

We are not sure that it would be either legally possible or desirable to allow a non-Federal authority to issue letters of exemption and maintain a publicly available data base. The latter might be a particularly sensitive issue if proprietary data were needed to effectively assess the nature, extent or significance of interactions between the fisheries and marine mammals.

Also, it seems preferable to issue letters of exemption to all affected fishermen at the beginning of the three-year period rather than to phase in the education and reporting programs over the period. In this regard, we also question the need for a 20 to 35 percent observer coverage in all cases and whether the Federal Government should underwrite all observer program costs. These seem a cost of doing business that should be borne by the fisheries.

The proposal would grant affected fisheries a limited three-year exemption to the act's prohibition on incidental taking of depleted species and population stocks. The exemption would be conditional upon fishermen accurately reporting the numbers of marine mammals taken and an observer program being developed to verify the reliability of reported data.

In this regard, we believe that the National Marine Fisheries Service and the Fish and Wildlife Service should be explicitly authorized to place observers on any vessel that might incidentally take marine mammals.

It is also essential that observers be placed randomly on representative samples of each vessel type engaged in the fisheries of concern.

Although the proposal provides a useful approach for dealing with the incidental take of depleted species and population stocks, it does not address problems posed by foreign fisheries regulated either under the Magnuson Fishery Conservation and Management Act or international agreements such as the International Convention for the High Seas Fisheries of the North Pacific Ocean.

In this regard, the fishery management plans developed by the regional fishery management councils under the MFCMA should specify measures needed to prevent or reduce interactions with marine mammals. For foreign fisheries not covered by the MFCMA, we should insure that the agreements governing those fisheries provide for protection and conservation of marine mammals as well as fish stocks and the ecosystems of which both are a part.

In both cases, one could authorize a limited exception to the prohibition on taking of species and population stocks that are depleted or of uncertain status pending development and implementation of conservation plans. If such authorization is provided, allowable take should be preferentially allocated to U.S. fishermen in the event that the incidental take by all fisheries combined would have more than a negligible effect on the affected species or stocks.

One particularly excellent objective of the joint conservation community/fishing industry proposal is to develop and implement recovery or conservation plans for species and population stocks substantially affected by interactions with fisheries. To avoid confusion with recovery plans as described in the Endangered Species Act, "conservation plan" may be a better term to use.

Most of the potential weaknesses which we see in the proposal developed by the fishing industry and environmental community are quite easily remedied. We look forward to working with your staff in any way that we are able to find a solution to this problem.

There are a few other issues which you may wish to consider in this reauthorization process. For example, section 104 now prohibits issuing permits for scientific research or other purposes without prior notice in the Federal Register and the provision of a 30-day comment period.

In certain instances it may be desirable to authorize the immediate take of animals. The investigation of the ongoing die-off of marine mammals along the east coast could be such an example.

Similarly, it might be appropriate to authorize the immediate importation of sick or injured marine mammals for treatment in cases where delays would be inhumane or fatal.

We therefore recommend that you consider providing the National Marine Fisheries Service and the Fish and Wildlife Service the authority to issue emergency permits in cases where either unique research opportunities might be lost or the affected marine mammal species, population stocks or individuals might be adversely affected by delaying action for 30 days or more.

Section 109(j) provides that the Secretaries of Commerce and the Interior may make grants to states to cover up to 50 percent of the cost of developing and administering State research and management programs.

Section 110 of the Act provides authority for the Secretaries of Commerce and the Interior to make grants in consultation with the Marine Mammal Commission to any Federal or State agency, public or private institution or person for the purpose of assisting such agency, institution or person to undertake research relevant to the protection and conservation of marine mammals.

To date, however, these authorities have not been used effectively.

At least two things could be done to better implement sections 109 and 110 granting authorities. First, section 109(j) could be amended to allow the Federal share of funding for states' marine mammal management programs to exceed 50 percent in any one year if the Secretary determines that a larger Federal contribution is essential to insure effective protection of affected marine mammal species or population stocks and if the level of contribution does not exceed 50 percent over a three-year period.

Second, 109(j) could be amended to require that the Secretaries of Interior and Commerce consult with relevant coastal states, affected industries and other interested parties to assist in developing and implementing cooperative marine mammal conservation plans for species and population stocks that are depleted.

Finally, because of inflationary changes since the act was passed in 1972, you may want to consider increasing the maximum penalties for violating the act and increasing the $100 per day compensation limit for consultants in section 206.

With respect to reauthorization, the Commission recommends reauthorization of Title II of the MMPA at a level of $993,000 for Fiscal Year 1989 and such sums as may be necessary in Fiscal Year 1990.

I shall be pleased to answer any questions you might have. Thank you for bearing with me.

[The statement follows:]

STATEMENT OF DR. WILLIAM W. FOX, JR., COMMISSIONER, MARINE MAMMAL COMMISSION

Good morning, Mr. Chairman and Members of the Committee. My name is William Fox, and I am a member of the Marine Mammal Commission. Because of my extensive background in the tuna-porpoise issue, Dr. Elsner, Chairman of the Commission, asked me if I would testify in his stead. Accompanying me are: Douglas G. Chapman, Ph.D., former Chairman of the Commission and now Vice-Chairman of our Committee of Scientific Advisors; John R. Twiss, Jr., Executive Director; and Robert J. Hofman, POH.D., Scientific Program Director.

I understand that you would like me to: (1) provide an overview of the activities of the Marine Mammal Commission with respect to marine mammal conservation, management, and research; (2) comment on the current status of marine mammal populations; (3) address Federal interagency coordination regarding marine mammals; (4) discuss means of improving the effectiveness of Federal marine mammal programs including a discussion of related budgetary requirements; and (5) provide extensive comment on the tuna-porpoise issue. I also understand that you wish me to note points that may be appropriate for amendment.

INTRODUCTION

The Marine Mammal Protection Act is unique in several respects. It was, for example, the first piece of legislation in any country to require that wildlife management be approached from an ecosystem perspective. Through the concept of "optimum sustainable populations," the Act introduced a focus on the biological status of population independent of non-biological considerations. It also established the principle that available biological and ecological information must be sufficient to allow one to reasonably conclude that any proposed taking of marine mammals will not be to the disadvantage of the affected species or population stocks before a proposed taking is authorize. The Act thereby placed the burden on the potential exploiter, rather than on the management agency or the conservation community, to reasonably demonstrate that a proposed taking would neither be to the disadvantage of marine mammals nor otherwise be contrary to the Act's goals.

Experience since passage of the Act has shown that there may be misconceptions about some provisions of the Act and that parts of it might usefully be amended to better meet the Act's intent.

An example of a misconception is found in the interpretation of Section 101(a)(3)(A). This Section of the Act provides for waiving the moratorium on taking and importing marine mammals. Until recently, a number of individuals and organizations, particularly in certain fisheries groups and some state management agencies, had apparently been of the view that, absent return of management authority to a state, the Act prohibits the intentional taking of marine mammals except by Alaska Natives or for purposes of scientific research and public display. The full range of activities permitted, including the possibility of obtaining a waiver of the moratorium for management purposes, now appears to be better understood.

With respect to possible areas for amendment, the following points are under discussion:

> First, the Act does not provide explicit authority for directly regulating or prohibiting actions that could result in the destruction or degradation of breeding areas, feeding areas, or other habitats or habitat components essential to the recovery and maintenance of marine mammal populations at optimum sustainable levels;
>
> Second, the Act prohibits that taking of animals from depleted species and population stocks, except for subsistence purposes by Alaska Natives, for purposes of scientific research, and incidential to certain non-fisheries related activities. It thus precludes the taking of depleted species and population stocks to restore or enhance protection of those species and stocks. It also prevents issuing permits to authorize the take of depleted species and population stocks incidental to commercial fishing operations even when it is obvious that the take would have no biologically significant adverse effect. In some circumstances, with appropriate controls, authorization for such takes may be appropriate;
>
> Third, the Act presently allows issuance of permits for scientific research or other purposes only after notice in the *Federal Register* and the provision of a 30 day period for public comment. While the established review procedures are entirely appropriate in most cases, language should be considered that would make it possible (1) to address emergency situations in which the affected marine mammal species, population stocks, or individuals could be adversely affected by delay and (2) to capitalize on unique research opportunities which might otherwise be lost; and
>
> Fourth, the Act presently does not require the development and implementation of long-term conservation plans for species or population stocks that have been, or could be, affected adversely by human activities.

We are prepared to work with your staff and other interested parties to address these and any other points you consider appropriate.

OVERVIEW OF COMMISSION ACTIVITIES

Our activities have been described and presented to Congress in our Annual Reports. These reports are distributed one month after each year's end; the 1987 Report was sent to Members in early February. The reports are comprehensive, factually accurate summaries which have been reviewed, in draft form, by all involved agencies. I do not believe that there is a better overview available of either our activities or marine mammal activities in general, and I hope that you will accept the 1987 Annual Report as part of the hearing record.

As described in our reports, the Commission has:

made numerous recommendations to the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the Department of State, and other Federal agencies on actions necessary to protect and conserve marine mammals and their habitats worldwide;

helped coordinated academic, state, Federal, and international research and study efforts to increase our understanding of marine mammals and prevent wasteful, duplicative research;

provided advice to the Secretaries of Commerce and the Interior on requests for waivers of the moratorium on taking of marine mammals and return of marine mammal management authority to states;

assisted the Department of State in developing United States' positions relative to negotiation of international agreements that would have a bearing upon the protection and conservation of marine mammals and the ecosystems of which they are a part; and

managed and made known the results of a small research and studies program aimed at defining and determining how best to resolve domestic and international problems affecting the conservation and protection of marine mammals and their habitats.

CURRENT STATUS OF MARINE MAMMAL POPULATIONS

With respect to your request for comment on the current status of marine mammal populations, some populations have substantially increased as a result of the protection afforded by the Marine Mammal Protection Act. Even with the Act's protection, however, certain populations have declined. For many, the available information is insufficient to say whether the population has increased, decreased, or remained stable.

Our annual reports address the status of a number of species of special concern. These include the West Indian manatee, the Hawaiian monk seal, the North Pacific fur seal, the northern or Stellar sea lion, the California sea otter, the humback whale, the right whale, the bowhead whale, the harbor porpoise, the Gulf of California harbor porpoise, and several river dolphins. While discussions in the reports are extensive, perhaps some brief additional comment will be useful.

There has been substantial progress in efforts to protect several species and their habitats. Our recent Annual Report, for example, discusses the cooperative efforts of the Fish and Wildlife Service, the Florida Department of Natural Resources, the Florida Game and Fresh Water Fish Commission, the Florida Power and Light Company, Florida Audubon, The Nature Conservancy, and several other organizations to develop and implement plans to protect manatees and habitats essential to their survival in Florida. Similar cooperative efforts by the Fish and Wildlife Service, the California Department of Fish and Game, the Minerals Management Service, and several industry and conservation groups have been successful in developing and implementing a plan to protect and encourage recovery of the remnant sea otter population in California.

In similar ways, the Fish and Wildlife Service, the National Marine Fisheries Service, the Alaska Department of Fish and Game, Alaska Native groups, and the oil and gas industry have undertaken cooperative programs involving bowhead whales, walrus, and polar bears. Perhaps the most striking example of a cooperative undertaking designed to shed light on the status of stocks and provide guidance for their conservation has been the preparation of species reports with research and management recommendations for ten marine mammal species found in Alaskan waters. The Alaska Department of Fish and Game, various Alaska Native groups, representatives of interested environmental and industry groups, members of the academic community, the Fish and Wildlife Service, and the National Marine Fisheries Service, all participated in developing the reports. The book containing these reports will be distributed at the end of this month.

Unfortunately, there are a number of species for which progress to date has not been encouraging. The North Pacific fur seal population that breeds on the Pribilof

Islands, for example, has suffered a substantial population decline, particularly in the late 1970s. The cause or causes of the decline have not yet been determined. Similarly, the numbers of northern or Steller sea lions in the Gulf of Alaska and the central Aleutian Islands have declined upwards of fifty percent in the last twenty years. Also, certain harbor seal populations in Alaska appear to be declining. The cause or causes of the northern sea lion and harbor seal population declines, like the Pribilof fur seal population decline, have not been determined. Furthermore, efforts to date have not enabled us to determine the causes of declines and determine how to prevent or mitigate them in these three species. The Marine Mammal Commission continues to work with appropriate agencies to help resolve the issue.

Another particularly troublesome issue is the unexplained die-off since last July of something over six hundred porpoises along the Atlantic Coast. Activities through December 1987 are summarized in our Annual Report, and I append a further update. Like the other efforts described above, this investigation is a cooperative undertaking. Coordinated by the Marine Mammal Commission and the National Marine Fisheries Service, it has involved the Smithsonian Institution, the Department of Agriculture, the Navy, the Environmental Protection Agency, the National Institutes of Health, the Fish and Wildlife Service, and a variety of non-governmental laboratories and organizations.

The Marine Commission is charged with recommending to other agencies actions which the Commission deems appropriate to further the purposes and policies of the Act. With respect to efforts to restore and conserve species and populations, the role of the Commission in initiating activities, either through recommendations or extensive studies, is well documented. For example, the Commission has: made recommendations to create recovery teams for right and humpback whales; provided the basic documentation for the recovery plans for those species; coordinated Federal and state efforts to address manatee issues; fostered acquisition of extensive critical manatee habitat in the northwestern part of Florida through a comprehensive Commission study adopted by many state and Federal organizations; led efforts to have critical habitat designated for the Hawaiian monk seal; recommended the reconstitution of the Hawaiian monk seal Recovery Team and the development of an updated Hawaiian monk seal recovery plan; and, with respect to a more general issue, was the original moving force in encouraging the Government and certain international and intergovernmental organizations to address the issue of non-degradable debris in the marine environment. With respect to these and other efforts to determine and/or improve the status of specific populations or species, I shall be pleased to provide key documents for the record.

FEDERAL INTERAGENCY COORDINATION

Matters addressed in the preceding section bespeak a level of cooperation and coordination far beyond that which existed ten or even five years ago. Communication and coordination are better than in the past. The critical issue now is more one of whether adequate levels of effort are being focused in ways that will insure that pressing issues are addressed in a timely fashion.

IMPROVING THE EFFECTIVENESS OF MARINE MAMMAL PROGRAMS

The next matter which you asked me to address is improving the effectiveness of Federal programs regarding the conservation and protection of marine mammals. I believe that a basic need exists to clearly articulate comprehensive research and management plans for species or population stocks that have been or are likely to be substantially affected by human activities. It was in no small measure the need to develop detailed plans for certain Alaskan marine mammals that caused us to prepare the ten species accounts with specific research and management recommendations.

If one is to provide effective protection and conservation to any species, one needs to develop detailed plans that include:

1. an assessment of the status of the species or population stock and the habitats essential to its maintenance and/or recovery;
2. a description of the nature, magnitude, and causes of any known population declines or loss of essential habitats;
3. an assessment of existing and possible threats to the species/population and its habitat;
4. a description of the impacts of the species or population stock and the effect of any restrictions on the taking of the species or population stock on fisheries, offshore oil and gas development, or other human activities;

5. discussions of critical gaps in knowledge of such things as vital population parameters, habitat requirements and essential habitats, threats to the species or population stock, effects of the species or population stock on fisheries, offshore oil and gas development, *etc.*;

6. descriptions of the research, management, and other measurements needed or proposed to fill critical data gaps, restore and/or maintain the species or population stock within its optimum sustainable population range, protect critical habitats, avoid or reduce impacts on fisheries or other human activities and, if consistent with the purposes and policies of the Marine Mammal Protection Act, permit resumption of utilization for commercial or other purposes;

7. an assessment of the likely impacts of the proposed research and management plan on the affected species or population stock, fisheries, *etc.*; and

8. a description of the reporting, monitoring, and other programs that would need to be implemented to verify the predicted effects and also detect unforeseen effects of the proposed action.

To be effective, such conservation plans should have strong action-forcing mandates and should be developed and implemented by the responsible Federal agencies in cooperation with state, Native, industry, environmental, and other interested groups. We believe that a series of carefully described plans responsive to critical questions (*e.g.*, what is causing this population to decline?) might gradually decrease demands on Federal and state funding as more efficient and effective research and management plans lead to better use of money as well as improved conservation of the species and populations in question.

THE TUNA-PORPOISE ISSUE

With respect to the incidental killing and injury of dolphins or porpoises in the Eastern Tropical Pacific, several matters merit your attention.

The most important is that we must not consider the issue as one of clearly separable "domestic" and "international" components. This differentiation, while necessary to deal with the problem from programmatic and political perspectives, is of little significance biologically. If we are to understand what is happening with these species from a biological perspective, we must look simultaneously at total impacts upon the populations from both domestic and foreign fleets. The fact is that although the domestic fleet has sharply reduced its levels of take, foreign take has increased dramatically.

A critical fact is that more than 60 percent of the tuna taken and more than 80 percent of the porpoise now being killed or seriously injured in the Eastern Tropical Pacific are being taken by foreign purse seiners. In many cases, they are not required to employ the propoise saving measures required of U.S. purse seiners, and they have not demonstrated the abililty to meet the performance standards being met by the domestic fleet. Thus, efforts by the United States fishing industry and the U.S. Government to reduce overall mortality and serious injury are being seriously compromised by foreign activities.

Other issues that should be considered are: the National Marine Fisheries Service's efforts to develop and implement a porpoise monitoring program as mandated by the 1984 amendments to the Marine Mammal Protection Act; the variation in porpoise mortality and injury rates experienced by the U.S. fishery in recent years; additional requirements that should be imposed upon foreign fleets to reduce substantially and rapidly the incidental mortality and injury; and any additional measures that might be taken to reduce further domestic incidental mortality and injury of porpoises.

The increasing threat to porpoise stocks from foreign flag purse seiners has been clear for some time. In recognition of this, Congress amended the Marine Mammal Protection Act in 1984 to require a country exporting yellowfin tuna to the United States to provide documentary evidence that—(1) it has adopted a regulatory program governing the incidental taking of marine mammals in the course of purse seining yellowfin tuna in the Eastern Tropical Pacific Ocean that is comparable to that of the United States; and (2) the average rate of incidental marine mammal take by vessels of that nation is comparable to the average rate of incidental taking of marine mammals by United States purse seine vessels.

In response to this amendment, the National Marine Fisheries Service considered a number of approaches and last month published an interim final rule on the issue. It is expected that when the final rule is put into effect, it will make countries wishing to export to the United States yellowfin tuna caught by purse seiners setting on porpoise satisfy a two-part test: (1) to provide documentary evidence that the nation has adopted a regulatory program governing the incidental taking of marine mammals that is comparable to the program of the United States, and (2) to demonstrate that the average rate of incidental mortality by its fishing vessels is comparable to the rate of incidental marine mammal mortality by the U.S. purse seine fleet operating in the Eastern Tropical Pacific.

The effectiveness of this interim rule, which we expect will be further amended before being put into final form, in reducing the incidental mortality and serious injury of porpoise in the Eastern Tropical Pacific will depend upon several factors addressed in the attached correspondence from the commission and in the points discussed below. A critical element will be the degree to which the regulations can compel foreign governments to adopt the U.S. view that incidental mortality and injury of porpoise must be sharply and immediately reduced and then take action accordingly. Another factor is the ability of the Inter-American Tropical Tuna Commission, the National Marine Fisheries Service, the Department of State, the U.S. tune fishery, and the environmental community to communicate the gravity of the probiem to foreign governments and fishermen with sufficient force to insure adoption and application of porpoise saving measures comparable to those required of, and used by, U.S. fishermen. Another critical element is the size of the foreign fishery and its dependence on U.S. markets. To refuse to allow imports from a nation that exports little or no tuna to the United States may be a hollow exercise without impact.

The 1984 amendments to the Marine Mammal Protection Act also required the National Marine Fisheries Service to undertake a scientific research program, beginning on 1 January 1985 and continuing for at least five years, to monitor indices of abundance and trends in the porpoise populations affected by the yellowfin tuna purse seine fishery in the Eastern Tropical Pacific Ocean. In response, the Service, in consultation with the Commission, the U.S. tuna industry, and the Inter-American Tropical Tuna Commission, convened a series of meetings in 1984 to develop a program plan. Subsequently, the Service adopted a program plan consisting of: (1) surveys of the affected porpoise populations using dedicated research ships of the National Oceanic and Atmospheric Administration; (2) analyses of data collected by observers placed aboard tuna purse seiners; and (3) analyses of biological and behavioral data collected from both research and fishing vessels.

As noted in our Annual Reports for 1986 and 1987, funding and logistic constraints prevented initiation of the program in 1985 as originally planned. With one exception, program elements were started in July of 1986. The exception was that the Service did not have a helicopter available to verify school size estimations and to determine whether porpoise are attacted to or attempt to avoid survey vessels. This was addressed in 1987 when the Service used one helicopter and two research vessels, the *David Starr Jordan* and the *MacArthur*, for porpoise surveys and related oceanographic studies. The surveys began in July and ended in early December 1987. In any year, the surveys can cover only a small fraction of the approximately five million square miles of the Eastern Tropical Pacific where purse seiners set on porpoise. However, they did provide data necessary to calibrate shipboard estimates of porpoise school size and to calculate age composition of porpoise schools. These will provide the basis for population estimates.

The Commission was advised at its meeting on 10–12 December 1987 that the Service expects to be able to complete the remainder of the five-year monitoring program as planned. The results thus far of the monitoring program are extremely preliminary. However, we believe that when the analysis is completed, it may show that the size of some affected porpoise stocks is smaller than previously estimated. If this is the case, then the combined U.S. and foreign incidental take could be greater than the annual replacement increment and be causing one or more stocks to decline.

The amendment directing the National Marine Fisheries Service to undertake a five-year monitoring program was inacted, in part, because of uncertainty about the status of several of the affected porpoise stocks. To avoid penalizing the U.S. fleet because of this uncertainty, the Act also was amended in 1984 to extend the general permit issued to the American Tunaboat Association on 1 December 1980 to authorize and govern the continued taking of marine mammals incidental to commercial purse seine fishing for yellowfin tuna after 31 December 1984. This amendment continued a previously established quota on the incidental taking of marine mammals in the yellowfin tuna purse seine fishery, while specifying the maximum allowable take of two species—the coastal spotted dolphin (*Stenella attenuata*) and the eastern spinner dolphin (*Stenella longirostris*)—whose statuses were praticularly uncertain.

Since 1981, the year in which the National Marine Fisheries Service first established an annual allowable take of 20,500, an average of about 17,500 dolphins or porpoises have been taken each year by the U.S. tuna purse seine fleet in the Eastern Tropical Pacific. During the same period, the number of vessels in the U.S. fleet has declined by more than half. In 1982 and 1986, the allowable take of 20,500 was exceeded. In 1983, the estimated take was 9,589, the lowest ever recorded. In 1987, the estimated take was 13,992, which also is substantially below the seven year average of approximately 17,500.

There is a variety of reasons for the variability in the annual take of porpoise by the U.S. tuna purse seine fleet. One is the number of "problem sets" in which large numbers of porpoise are killed. Problem sets can be caused by a variety of things including equipment malfunction and inexperienced crews. Other possible causes of annual variation is incidental take are: differences in the number of sets made on porpoise schools; variation in the number, species, and past capture history of porpoises that are cuaght; and variation in the amount of tuna caught per set. With regard to the last point, the 1987 tuna catch rate of less than twenty tons of tuna per set, well below the 1986 level of about twenty-five tons of tuna per set, is consistent with previous observations that fewer porpoises are killed when fewer tuna are taken.

Despite the relatively low domestic porpoise mortality in 1987, an unusually large number of eastern spinner dolphins was taken. The 1984 amendments established a quota of 2,750 for the eastern spinner stock. In 1987, an estimated 2,688 eastern spinner dolphins were killed or seriously injured. By comparison, when the overall quota of 20,500 was exceeded in 1986, the estimated mortality of eastern spinners was only 1,608. The reasons for this are not known but a possible explanation is that tuna, and therefore, fishing effort, were concentrated in 1987 in an area of the Eastern Tropical Pacific Ocean where eastern spinner dolphins are more abundant than in areas where the fishery normally occurs.

It is generally agreed that the variables which most affect porpoise take rates are the skill and desire of the crew, particularly the captain, to avoid killing porpoise, and the quality and maintenance of the vessel and gear. The most effective ways to further reduce the incidental mortality and serious injury by by the U.S. purse seine fleet would be: (1) to reinstate the 100 percent observer program; (2) to decertify vessels and captains that consistently kill or injure substantially more porpoise than the average vessel and captain; and (3) should promising new technological approaches be identified, to provide assistance to the industry in exploring those that might further reduce levels of kill and injury.

While there has been a great reduction in levels of domestic take since the early 1970s, the foreign take has grown rapidly in recent years. Clearly, the greatest effort needs to be focused on the foreign fleet. Import regulations and such other controls or means of influence as might be developed should be thoroughly exercised to: (1) attain as near to 100 percent observer coverage as is possible; (2) attempt to get an international observer program based upon exchange of observers rather than having nationals observe upon their own vessels; (3) ensure conformance of the foreign fleet with all of the standards applicable to the U.S. fleet; and (4) intensify training and education programs for foreign fishermen. Such actions should substantially reduce the levels of incidental kill and injury by the foreign fleet. In addition, to effectively ensure that the combined U.S. and foreign incidental take will not further jeopardize any of the affected porpoise stocks, the Commission believes that it is necessary to continue research to estimate the probable replacement yields of each affected stock and then use these estimates to establish allowable total take levels.

REAUTHORIZATION OF THE COMMISSION

With respect to the issue of reauthorization, the Commission recommends reauthorization of Title II of the Marine Mammal Protection Act at its existing level of $933,000 for Fiscal Year 1989 and such sums as may be necessary for Fiscal Year 1990.

I hope this review has been helpful. Thank you for having invited the Commission to testify.

Senator BREAUX. Let me ask Mr. Evans. In your statement you say that NOAA feels that you have a lack of authority or no authority to allow the take of depleted marine mammals incidental to commercial fisheries. At the bottom of the page you also talk about the fact that NOAA has interpreted its authority under the MMPA to include discretion to issue the permits for incidental taking of the populations covered by the permit or within OSP.

My general question is how were these general permits issued in the past if we did not have the OSP information on these species?

Mr. EVANS. I will refer to Eileen Cooney for the legal interpretation of this. In those cases where we had a number of species, especially pelagic species of relatively large numbers that were seen commonly, but we did not have adequate information in terms of what the exact population size was or on what the historical optimum population level was, we assumed that they were at optimum sustainable population and we would grant a permit based on that.

Senator BREAUX. So what I am hearing is that you all just assumed that they were not depleted, and that was a safe assumption until it was challenged by the litigation?

Mr. EVANS. In those species which were taken in very small numbers, Mr. Chairman. In the case of Dall's porpoise where it was obviously a very significant number of animals being taken, we put forth a major research effort to determine, one, population size and, two, the actual impact of that fishery on that particular species.

It was noted during that time that other species are relatively common in the area but a few of them, Pacific whitesided dolphins as one example and the light whale dolphin and occasionally a sea lion and a few fur seals from the Commodores, would be taken. So those were not considered as an OSP problem, but in the case of Dall's porpoise, since that was a major take, we did undertake to determine what the population level was.

Senator BREAUX. But did you do an OSP determination on Dall's porpoises?

Mr. EVANS. No, sir. We did not finish the research, and we do not have the data that our people feel right now is adequate to make that kind of a determination for the entire sepcies.

One of the problems that we have, Mr. Chairman, in dealing with pelagic species is the fact that they are migratory. They are spread out over millions of square miles.

The ability to be able to get accurate estimates of population size, as you well know, from the very close relationship that you have had in dealing with the problem that we have had with tuna porpoise was the amount of effort and time and money that went into our coming up with population estimates of the various species involved in that fishery. That was a very concentrated effort with all the fishing vessels reporting, a very large research program and a lot of observers, and it took several years for us to come up with the appropriate numbers where we could even estimate what the limits on the take should be in that case.

Senator BREAUX. Let me ask you just for the record to make sure that it is correct, you did do an OSP for Dall's porpoises, did you not?

Mr. EVANS. Yes, we did make a determination for the appropriate stocks.

Senator BREAUX. You just said you did not, and I want the record to be correct.

Mr. EVANS. It was a temporary one in terms of the—I have a problem getting a crosswire between being a bureaucrat and a scientist. As a scientist, I would like very much to see a little better data base than we have in the case of Dall's porpoise in determining what the historic population size was, and we do not have that information.

But we did for purposes of permitting make, I think, some initial determinations.

Senator **Breaux**. Is there an OSP determination for any of the other species in the area that we are talking about?

Mr. **Evans**. With the exception of the fur seal, and we are in the process of determining it for the northern sea lion at the present time. We have enough data now that we are looking very closely to the California sea lion, the elephant seal; they had a program going on for two or three years on harbor seals.

Senator **Breaux**. I know that, but I am asking if we have anything——

Mr. **Evans**. We do not have them at the present time except for fur seals, yes, sir.

Senator **Breaux**. The answer is except for fur seals, we do not have an OSP determination on any of these species.

Mr. **Evans**. We will have one shortly on the northern sea lion, yes, sir.

Senator **Breaux**. That is the Stellar?

Mr. **Evans**. Yes, sir, the Stellar sea lion.

Senator **Breaux**. So when we get those two, they will be the only species. I am trying to define the rationale for the proposal recommendations because without an OSP determination fishermen are not going to be able to qualify for a general permit, and obviously they do not qualify for a small take exception.

So to justify the need for what they are suggesting, the fact that we do not have an OSP for most of the species is part of that rationale.

You speak to the fact that you could not support any amendments to the MMPA authorizing exemptions unless it provides the same consideration to foreign fishermen as it does to U.S. fishermen.

I do not think there is a direct allocation for foreign fishermen anymore on the west coast, but on the east coast we have some joint ventures with foreigners. Those joint venture agreements require a directed allocation for the foreign partner.

Is that the situation that you are concerned about?

Mr. **Evans**. Yes, sir. This last year on the east coast in the trawl fishery involving both the German Democratic Republic, Poland and Netherlands who are involved in the mackerel fishery, which by the way is very important to the people that are in the joint venture business also having those fisheries involved, we had almost a doubling this year, but because of the observers on board we had fairly good numbers. We had almost a doubling this year of the number of marine mammals taken incidental to that mackerel fishery.

Senator **Breaux**. Those foreign fishermen on the east coast, I take it, have observers on board their vessels already?

Mr. **Evans**. Yes, sir, they do.

Senator **Breaux**. So it would not be a problem as far as instituting an observer program on those foreign fleets because they already have them.

The authority for the incidental take of marine mammals by the Menhaden fleet is a small-take exemption?

Mr. EVANS. Yes, it is.

Senator BREAUX. I guess that would expire this year. Do you see any problems with that being extended?

Mr. EVANS. I think we are going to have problems with the number and in fact, almost all of these small take exemptions, unless we get some clarification on the Dall's porpoise case.

At the present time, our appeal was turned down, and we are trying to make a decision right now as to what direction we are going to go.

Senator BREAUX. Now, wait a minute. We are talking about small-take as opposed to general permits, are we not? The litigation dealt with general permits and not the small take.

Mr. EVANS. My counsel informed me that as long as we are dealing with the species that is not depleted, there is a small take exemption available. In the case of the animal taken, I believe *Tursiops* or the bottlenose dolphin is the one that is taken with the Menhaden fishery.

Senator BREAUX. So I take it that with regard to the question of extending the Menhaden small-take permit, it does not seem to be a problem?

Mr. EVANS. No, not within the Gulf. We do have a problem that may come up, although it is very, very preliminary data. As you know, we had a very large dolphin die-off on the east coast.

There is some indication that based on past population levels that we had that we could be getting into a situation with the bottlenose dolphin on the east coast of Florida and on up the coast off of Virginia of that population level going down to a point where there would be a question as to whether or not it was depleted.

Senator BREAUX. Now, how does that question of depletion affect the small take permit?

Mr. EVANS. If it is depleted, you cannot have a small take exemption.

Senator BREAUX. Is there information that would indicate it is approaching depleted status?

Mr. EVANS. No. If it is uncertain, if we have not established it, then the small take exemption is still possible. We have to have actually gone through the process of determining and publish that, one, we are in the process of determining whether or not a species is depleted or not. Then the depletion determination has to be made, and it has to be then determined that it is depleted.

Then in that case, there are some problems with the small take exception, but until that has been done, the small take exemption is possible.

Senator BREAUX. Mr. Adams.

Senator ADAMS. Thank you, Mr. Chairman. I had just one question Mr. Cowles earlier had a Chinese proverb that he quoted.

I have one, Mr. Evans and Dr. Fox, I used to put on my wall when I was in the administration which leads to my question. It states, "Blessed is he who expects nothing, for he shall never be disappointed".

Now, I see a fundamental problem, and I want you to describe to me whether or not you believe it is occurring.

You have marine mammal requirements based on whether a species is depleted or in various other categories which involve a data base.

Now, under the current regulations commercial fishermen who take marine mammals are supposed to obtain certificates. They are supposed to file reports on marine mammals at the close of fishing season.

From experience in the North Pacific and particularly out of the west coast ports, I just have a very hard time visualizing this system from what I know of the commercial fishing industry. Everybody takes out from a different port, they are all out there fishing, the weather sometimes is very bad, and people are all doing their own thing.

I just want you to tell me whether or not you believe people are, first, filing for a certificate or, second, if they ever file the required reports.

It goes to the question we talked about a little earlier. Are people providing a data base from the commercial fishing industry, and is it accurate? That information, then, triggers certain actions on your part which lead to the court making a determination on whether a biological depletion has occurred.

Mr. Evans?

Mr. EVANS. First of all, Senator, I would like to make one comment and then pass it on to the Marine Mammal Commission because what I am going to say refers to some research that they have funded. Based upon some of the research that they have had, for instance, in cases looking at the coastal in-shore gillnet fishery and trying to——

Senator ADAMS. The gillnet fishery is observable. We know quite a bit about that.

Mr. EVANS. I am saying that that is the only place that we probably have any reasonable data. When we have data on ships that are fishing far at sea with no observers on board, the reporting and the value of the data is questionable.

Dr. FOX. That would be our opinion. I think Mr. Bricklemyer testified that a very small percentage of the take was reported, and I think that that is probably accurate.

Senator ADAMS. Thank you, Mr. Chairman.

Senator BREAUX. I have just two other questions.

Mr. Evans, we have reached a fishing agreement with the Soviets which is supposedly going to be finalized as part of the summit. This is a reciprocal fishing agreement which presumably will call for directed fishery operations by the Soviets in our waters and our fishermen in their waters.

Now, without some modifications to deal with the foreigners this agreement that the committee is discussing today would, as I interpret your point, not allow the Soviets to get any kind of a general permit or a letter of exemption because it does not cover foreigners. Is that right?

Mr. EVANS. As I interpret it, sir, we would not be able to give them any kind of an exemption or permit whatsoever under this current proposal.

Senator BREAUX. So it would make any reciprocal fishing agreements under that Soviet treaty inoperable?

Mr. **Evans**. It would certainly throw a big block in the way.

Senator **Breaux**. Dr. Fox, I am a little concerned. It does not seem that the Marine Mammal Commission is involved in any real directed way in this proposed agreement that we are considering. Is that not a concern to you?

Dr. **Fox**. The Marine Mammal Commission has kept close contact with both the environmental community and the fishing industry, that is the individuals who have been negotiating this agreement.

The Marine Mammal Commission also has been putting together some ideas which we have discussed with various groups. We are now having these ideas reviewed by the full Commission and our Committee of Scientific Advisors.

Senator **Breaux**. We would certainly like to have that information and recommendations prior to any movement on this legislation so we may incorporate your suggestions if we think that they are appropriate.

Does anybody have any problems from the government's perspective with regard to the fact that the general permits and small-take exceptions would continue to be issued by NMFS, but that the new letters of exemption would be issued not by our government but by a private sector operation?

Mr. **Evans**. Well, Mr. Chairman, we would like to have a little bit—as you were saying, there was not really a whole lot of definition in some aspects of that proposal, and that part in particular did not detail out what would be the composition of the group, how would the group be selected, who would select them, a number of things which we would like to know before we would be willing to say that we really should not maintain it within the Federal Government.

I think the system we have now with the National Marine Fisheries Service with oversight by the Marine Mammal Commission and the Committee of Scientific Advisers has been working very well. I know that some members of that group may not believe that, but we do feel that it has been working.

Senator **Breaux**. Let me ask you on behalf of the Committee to give us some recommendations. I know you made some general comments as to how you think that this proposal is lacking in some aspects, although the general agreement with it is very encouraging.

We would like to have your recommendations regarding those areas which you think could be improved upon. If it is with this permitting process or whatever let us know what you think would be a more feasible and a more workable process.

Mr. **Evans**. Yes, sir. We would appreciate doing that, actually.

[The following information was subsequently received for the record:]

UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

JUN 22 1988

Honorable John B. Breaux
United States Senate
Washington D.C. 20510

Dear Senator Breaux:

This is in response to your request for the National Oceanic and Atmospheric Administration's (NOAA) views on the proposal to amend the Marine Mammal Protection Act (MMPA) developed by the conservation community and the fishing industry. As I testified before the Committee on Commerce, Science and Transportation, NOAA believes that, with modification, the proposal is a temporary solution to current problems. It will allow important fisheries to continue while providing documentation of the nature and extent of interactions between commercial fishermen and marine mammals.

NOAA believes the three-year limited exemption should apply to foreign fishermen who incidentally take marine mammals in the U.S. Exclusive Economic Zone. Foreign fisheries, as with domestic fisheries, would be identified as having or not having continuing documented interactions with marine mammals, and would be subject to similar reporting and verification programs. We see no basis for discriminatory actions with regard to domestic and foreign fisheries.

NOAA believes that the observer program should be funded through user fees. This can be accomplished by charging fees for letters of exemptions. We see no alternatives that would not come from other parts of the Federal budget and thereby reduce ongoing programs.

We have no basic objection to the non-Federal, centralized authority for issuing letters of exemption as long as its functions are procedural only. Our understanding of this aspect of the proposal is that it will be funded by industry and the conservation community. Our concern is that there be some reasonable guarantee of funding and performance to avoid the responsibility being shifted back to NOAA and our being faced with the unexpected funding and staffing burden.

Although most discussions of the proposal have focused on the west coast, we believe that the east coast must also be included as appropriate. The three points discussed in this letter represent only a part of our concern. Other issues, as mentioned in our testimony and the enclosed specific comments, should also be addressed in any proposed legislative amendments. We look forward to working with your staff throughout this process.

Sincerely,

William E. Evans

Enclosure

The following outlines the National Oceanic and Atmospheric Administration's (NOAA) principal comments on the proposal to amend the Marine Mammal Protection Act (MMPA) developed by the conservation community and fishing industry. Section numbers and titles respond to those in the proposal dated May 10, 1988.

II. Education

Development of an education program should be a cooperative effort between the industry, the conservation community and the Federal Government. An education program for foreign fisheries should be included. In this case, fisheries-specific programs would be negotiated with and paid for by the foreign government or foreign fishing group.

III. Population Status Review Process

The review process should be modified to parallel more closely the status review process under the Endangered Species Act. Specifically, it should be explicit that a status review will be conducted only if there is "substantial" information on the species. Compiling existing data, establishing a workshop, evaluating the workshop proposal, and processing a proposed regulation cannot reasonably be completed in the six months described in the proposal. Therefore, the agency should be allowed one year from the receipt of the petition to publish a proposed action.

IV. Three-year Limited Exemption

The limited exemption should be expanded to include foreign fisheries. Foreign fisheries, as with domestic fisheries, would be identified as having or not having continuing documented interactions with marine mammals, and would be subject to similar reporting and verification programs.

In addition, both U.S. and foreign fisheries identified as having a "very remote" possibility of interacting with marine mammals should be exempt from the MMPA permit requirements for all marine mammals, not just those listed in the exemption.

A. Marine Mammals Involved for this Exemption

The list of species should be expanded to include those species of unknown status that are taken in east coast fisheries and in foreign fisheries (such as pilot whales and common dolphin). In addition, certain species listed as endangered or threatened should be added. As presently written, if a fishery may incidentally take a gray whale, the exemption would not apply and a general permit or small take authorization could not be granted. Therefore, fisheries such as west coast drift gillnet fisheries could not be granted any MMPA take authorization. We are developing and will provide to the Committee a complete list of species that we believe should be included.

B. Participation

During the three-year period, holders of letters of exemption should be exempt from the permit requirements and the MMPA's prohibition on taking only for those species covered in the exemption. The total number of allowed takes of Northern fur seals should be increased by 50 and Steller sea lions by 100 to cover the added foreign takes.

3. Process

Establishing a non-Federal, centralized authority to administer the letter of exemption program could raise an issue under the Appointments Clause of the Constitution. If established, the role of the non-Federal authority should be limited to processing functions only. All policy and guidance should be developed by NOAA. Federal regulations should specify the process and the time frame for obtaining letters, and should specify what data are to be submitted, to whom and when. The authority gathering the information should have a formal system for receiving and recording information so that any enforcement cases that may arise out of failure to report, inaccurate reports, or failure to obtain a letter of exemption would be supported by admissible evidence. All data, reports, and records should be provided to NOAA.

Federal law or regulations should also specify which information will be made available to the public. The authority that obtains the information must be covered by confidentiality requirements like Federal employees to ensure that any confidential data are not released.

There should also be an appeal system so that if a party believed that the authority improperly denied a letter of exemption, refused to release data, or released or planned to release confidential data, that party could appeal to the Department of Commerce.

4. Penalties

There should be greater incentives to participate in the system and to file accurate reports to assist in gathering marine mammals-fisheries interaction data. It should be a violation of the MMPA for vessels/operators in identified fisheries to fish without a letter of exemption, regardless of whether marine mammals are encountered. Potential penalties should be at least $200 for the second year and $1,000 for the third year; lesser penalties can be accepted by NOAA in cases of documented hardship.

5. Citizen Suit

The provision allowing citizens to initiate actions against fishermen should be deleted.

C. Verification System

The verification system should adhere to scientific principles especially with regard to the placement of observers. Observers should be randomly placed on vessels rather than allowing industry to identify vessels to be observed. The level of observer coverage for each fishery should be determined by NOAA, in consultation with the fishing industry and conservation community, rather than established by law. The level of observer coverage should allow statistically significant verification of the level of incidental take. The necessary sample size depends on the fishery, and emphasis should be given to those fisheries having the greatest potential for adversely affecting marine mammals.

The observer program should be funded through letters of exemption fees. Fees should be established by NMFS for each fishery based on estimated costs of the verification system. A long-term option would be to use funds generated through a broader user fee, such as in NOAA's proposed Federal Marine Fishing Fee. Observer programs for foreign fisheries not governed by the Magnuson Act should be negotiated with and paid for by the foreign government/fishery. The level of observer coverage should allow statistically significant verification of the level of incidental take.

The list of fisheries should be expanded to include east coast and other fisheries. NOAA is developing and will provide a list to the Committee in the near future. NOAA should be given authority to amend the list of fisheries subject to verification based on the best available scientific evidence, after consultation with the fishing industry and conservation community. Agreement by all parties should not be required.

NOAA believes that the Federal Government should not indemnify vessel operators. Facing a liability risk, taking all reasonable steps to ensure an observer's safety, and procuring insurance to guard against any residual risk should be part of the operator's cost of doing business.

F. Recovery Plans

The required plans should be called marine mammal conservation plans to avoid confusion with the Endangered Species Act. NOAA should also be allowed to implement mitigation measures as has been done through state regulations, such as in California.

Senator **Breaux**. With that, we have unanimous consent to have members submit additional questions to the panel members. We also would ask unanimous consent that statements from any members of the committee also be made part of the record. I know that the chairman of the full committee, Senator Hollings, has a statement which we will make part of the record, and any other members' statements will be made part of the record.

With that, the committee will stand adjourned.

[Whereupon, at 11:20 a.m. the hearing adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

Statement of Edward E. Wolfe, Deputy Assistant Secretary of State, for Oceans and Fisheries Affairs, Department of State

Mr. Chairman and members of the committee. I am pleased to discuss incidential mortality of small cetaceans in tuna purse seining operations in the context of reauthorization of the Marine Mammal Protection Act (MMPA).

As you are aware, large yellowfish tuna associate with various species of dolphins in the Eastern Tropical Pacific (ETP). Setting purse seines around herds of dolphins to capture the tuna underneath can result in accidential dolphin mortality due to entanglement and drowning.

The MMPA charged the Department of State to initiate negotiations toward bilateral or multilateral agreements with other nations for the protection and conservation of marine mammals. More specifically, with regard to the problem of incidental dolphin mortality, the MMPA directed the Department to undertake negotiations within the Inter-American Tropical Tuna Commission in order to obtain the agreement of foreign nations involved in purse seining in the eastern Pacific Ocean to reduce to the maximum extent feasible the incidental taking of marine mammals. We considered it a great success in 1976 when we were able to successfully conclude these difficult negotiations with an agreement that the responsibilities of the IATTC should be broadened to address the problem of incidental dolphin mortality. More specifically, the member nations of the Commission agreed that the IATTC "should strive to maintain a high level of tuna production and also to maintain [dolphin] stocks at or above levels that assure their survival in perpetuity, with every reasonable effort being made to avoid needless or careless killing of [dolphins]" (IATTC, 1976 meeting minutes).

The resulting tuna-dolphin research program was created to study primarily: 1) dolphin population assessments, incidental mortality rates, and other life history parameters; 2) methods of reducing dolphin mortality, including the development of new or improved fishing techniques and the study of dolphin behavior, and 3) studies of interactions between dolphins and tunas.

One very important element of the IATTC's dolphin program is the international observer program. The IATTC places scientific technicians aboard purse seiners of member states which fish for tuna in the ETP. These technicians collect data on incidental dolphin mortality, marine mammal abudance and fishing effort. Efforts are made to obtain representative samples of all fishing trips so as to minimize the variances of estimates of dolphin abundance and mortality. Member states fishing in the ETP, as well as cooperating non-member states, participate in the IATTC observer program. Purse seiners flying the flags of Costa Rica, Ecuador, El Salvador, Mexico, Panama, Spain, the United States, Vanuatu and Venezuela carried IATTC technicians in 1987. Approximately 42 percent of all fishing trips were covered during 1987.

In addition, the IATTC tuna-dolphin program has led to gear and fishing technique modifications which have contributed to greatly reduced dolphin mortality, and it conducts education programs for fishing vessel captains on how to utilize these techniques. The IATTC has made specific and detailed recommendations to all nations purse seining in the ETP as to steps which should be taken to reduce incidental dolphin mortality and has offered technical assistance to any nation or vessel captain in pursuing such recommendations. A great deal of the credit for the success of these programs must go to Dr. James Joseph, Director of the IATTC.

As a result of these efforts, and regulations promulgated by NMFS under the authority of the MMPA, dolphin mortality due to U.S. flag fleet operations has dropped over 90% from pre-1976 levels. With respect to non-U.S. flag tuna seiners in the ETP, incidential dolphin mortality has fluctuated widely over the past fifteen years. We have seen, however, an increase in foreign flag purse seining operations and incidential dolphin mortality since 1984. Based on IATTC reports, we believe their programs have had a significant impact in reducing incidential dolphin mortality below what it would otherwise have been in their absence.

In this context, the Department of State fully supports the recently published NMFS Interim Final Rule on the Importation of Yellowfin Tuna Caught in Association with Marine Mammals. As the United States represents one of the world's largest markets for tuna, we feel that the approach taken by NMFS creates the appropriate incentives for nations to act to reduce dolphin mortality rather than to circumvent the regulations by finding other markets for their tuna. We expect the incentives presented by these regulations, in conjunction with the ongoing programs of the IATTC, to markedly reduce dolphin mortality incidential to tuna catch. We would note for the record that the requirement for a decreasing trend in dolphin mortality rates which other nations must document means that they must initiate measures to reduce such mortality if they wish to have a positive finding in 1991.

The Department of State has already sent these regulations, with explanatory material, to those nations whose vessels are expected to purse seine for yellowfin tuna in the ETP this year. We look forward to working with NMFS on the implementation of these rules.

QUESTIONS OF SENATOR KERRY AND THE ANSWERS

Question. As you know, legislation to implement the South Pacific Tuna Treaty was recently reported by this Committee.

Is the entry into force of this treaty likely to divert U.S. tunaboats from the Eastern into the Western Pacific?

How would you expect such a change to affect the composition of the tuna fleet in the Eastern Pacific, and the incidental take of porpoises by that fleet?

Answer. We do not expect, at this time, that entry into force of the South Pacific Regional Fisheries Treaty will result in U.S. tunaboats shifting their activities from the Eastern to the Western Pacific. Fishing effort by the U.S. tuna fleet in recent years has been divided roughly equally between the Eastern and Western Pacific. The Department of State has forwarded 30 regional license applications to the Forum Fisheries Agency for fishing in the Western Pacific under the treaty. This is roughly half of the active U.S. fleet, and is consistent with the division of effort seen in recent years. This division of effort could change as more fishing experience under the South Pacific Regional Fisheries Treaty is obtained or as unpredictable, large-scale oceanographic and atmospheric events such as El Ninos influence the fishery. The impact of El Nino events on the composition and fishing effort of the international tuna fleet in the Eastern Tropical Pacific cannot be forecast.

Question. In looking at the tuna-porpoise issue, it seems to me that the State Department should have a central role in developing an international solution. Your testimony implies that active State Department involvement in the tuna-porpoise issue ended in 1976 with the completion of IATTC negotiations.

What action has (the) State Department taken in recent years to address the tuna-porpoise problem in the Eastern Pacific?

What plans does the Department have for further international efforts to reduce porpoise morality in the Eastern Pacific?

Answer. The Department of State has worked with tuna fishing countries through the Inter-American Tropical Tuna Commission (IATTC) continuously since 1976 on the tuna-porpoise issue. As an international scientific organization, the IATTC has both the expertise and credibility to address the problem of incidental dolphin mortality in an effective and objective manner. The IATTC tuna-dolphin program has led to the dissemination and adoption of fishing technique and gear modifications, as well as an education program for fishing vessel captains. These efforts have contributed to greatly reduced dolphin entanglement and drowning in the ETP relative to what would have occurred in their absence. The United States is the major contributor to the IATTC budget, and the Department of State participates actively in the work of the IATTC at both the technical and policy levels. The Department of State is open to additional international efforts to reduce dolphin mortality in the ETP and will work with the IATTC to ensure the effective implementation of any agreed measures. At this time, the Department believes the best course is to implement the recently published National Marine Fisheries Service regulations concerning the importation of yellowfin tuna caught in association with marine mammals and to evaluate the efficacy of the NMFS regulations in reducing incidental dolphin mortality. Following a preliminary evaluation of the impact of the NMFS regulations, an informed course of action can be agreed upon concerning the replacement or enhancement of these regulations, should they prove inadequate.

Question. With respect to the final interim rulemaking on importation of tuna, do you have any suggestions for changes in the regulations to improve their effectiveness?

Answer. The Department is preparing comments for the Department of Commerce on its interim final rulemaking. After a preliminary review, we do not have suggestions for change which would improve the effectiveness of the regulations.

Question. The hearing testimony mentioned a resolution which is before the European Community to restrict importation of tuna caught in association with marine mammals. I understand that the resolution was developed and introduced through the efforts of nongovernmental organizations.

What is your understanding of and involvement with this resolution?

What State Department action could be taken to support such efforts?

Answer. The Department of State has had no involvement with this resolution, and first learned of it at the 13 April hearing of the Commerce Committee. We have requested a report on this resolution from our mission to the European Community. Identification of appropriate actions which could support such efforts will necessarily await a response to our inquiry.

QUESTIONS OF SENATOR PACKWOOD AND THE ANSWERS

Question. Please describe the actions taken by the Department of State since enactment of the 1984 amendments to deal with: (1) the incidental taking of porpoise by other nations fishing in the Eastern Tropical Pacific (ETP); and (2) management of the tuna resources of the ETP through the IATTC or a successor organization.

Answer. The Department of State has worked through the Inter-American Tropical Tuna Commission (IATTC) on both the incidental taking of dolphin in association with tuna seining and tuna management in the Eastern Tropical Pacific (ETP). As an international scientific organization, the IATTC has both the expertise and the credibility to address the problems of incidental dolphin mortality and tuna management in an effective and objective fashion. The United States is the major contributor to the IATTC budget, and the Department of State participates actively in the work of the IATTC at both the technical and policy levels.

There has not been, since 1984, any serious discussion or negotiation of a successor organization to the IATTC. Should such discussions take place in the future, we will do all we can to ensure that tuna management and dolphin conservation issues are adequately dealt with by any successor organization.

In addition, the Department forwarded the National Marine Fisheries Service' draft final regulations regarding importation of yellowfin tuna caught in association with marine mammals to those nations expected to purse seine in the EPT in 1988 immediately following their receipt from the NMFS. We have asked our embassies to engage the appropriate officials of these nations in a dialogue on the tuna/dolphin problem and to urge their governments to take steps to reduce their incidental take of dolphins.

Question. Has the Department of State consulted with representatives of other nations that serve as markets for tuna caught on porpoise in the ETP for purposes of developing a coordinated approach to the problem?

Answer. No. The Department has not done this, but we are prepared to consider the viability of such an approach.

STATEMENT OF CAROL FULTON, EXECUTIVE DIRECTOR, FRIENDS OF THE SEA OTTER

Friends of the Sea Otter ("FSO") appreciates this opportunity to provide testimony on the reauthorization of the Marine Mammal Protection Act ("MMPA").

FSO is a non-profit conservation organization that has worked since 1968 to protect the southern sea otter (*Enhydra lutris nereis*) and its marine habitat along the California coast. FSO also is concerned with the protection of the Alaskan sea otter (*Enhydra lutris lutris*). Over 4,700 members in all 50 states and 14 foreign countries support our efforts to secure the otter's future.

The southern sea otter is listed as threatened under the Endangered Species Act ("ESA") and depleted under the MMPA. Since the mid-1980's, cooperative efforts by state and federal agencies, strongly supported by FSO and other private conservation organizations, have achieved two significant accomplishments essential to putting the southern sea otter on the road to recovery.

First, some of the problems caused by incidental take in fishing operations have been addressed. As a result of state prohibitions on the setting of entangling fishing nets throughout most of the otter range, the first small, but encouraging, signs of population growth in over a decade have become apparent.

Second, there is now a fledgling otter colony in the process of reclaiming its ancestral home at San Nicolas Island. Although the ultimate fate of that translocated colony cannot be predicted, and while the parent population of only about 1,650 animals continues to be at risk from oil spills, coastal pollution and illegal killings, we are heartened by these two developments.

From its enactment in 1972, the MMPA has been one of the otter's most important protections. Most recently, the requirements of the MMPA played a major role in the State of California's effort to protect the otter from staggering losses in the nearshore set gill and trammel net fishery. According to the California Department of Fish and Game, these losses "could be the most significant mortality factor contributing to the apparent lack of sea otter population growth in California waters during the past decade."

The MMPA also has been an important force in reintroducing the southern sea otter to San Nicolas Island, developing the zonal management concept now in place in central/southern California, implementing an observer program for incidental take, and conducting valuable scientific research.

INCIDENTAL TAKE OF DEPLETED MARINE MAMMALS

During the 1988 reauthorization process, considerable attention has been focused on the protection and management problems associated with the taking of marine mammals incidental to commercial fishing operations. The impetus behind this review, in part, has been the decision in *Kokechik Fishermen's Assoc.* v. *Secretary of Commerce,* 839 F.2d 795 (D.C. Cir. 1988), which the National Marine Fisheries Service asserts has called into question its legal authority to issue general permits and small take authorizations for fisheries involved in the take of certain marine mammal species and stocks.

In the midst of the resulting confusion, the environmental community, including FSO, and various segments of the domestic fishing industry have consulted with each other in an effort to establish common ground and define for Congress a path that will ensure protection for marine mammals in accordance with the MMPA's time-tested purposes and policies, while providing adequate opportunity for the industry to conduct responsible fishing operations. The resulting proposal, which has been submitted to this Committee, is designed to provide a limited three year exemption to the MMPA's commerical fishing incidental take prohibition and set in motion a long overdue effort to improve our ability to identify, assess, and eliminate or mitigate the adverse effects of fisheries on marine mammals.

Parties to the negotiations for the proposal have not questioned the necessity of excluding sea otters from the limited exemption. This decision is based on unassailable biological, management and legal considerations.

Any incidental take of southern sea otters could jeopardize species recovery. In all likelihood, such take would initiate a period of no population growth or decline similar to that of the mid-1970's to the mid-1980's.

The behavioral characteristics and distribution patterns of the southern sea otter make it particularly vulnerable to drowning in entangling fishing nets. Otters usually are distributed with ½ mile to 1 mile of shore, and they generally feed on bottom-dwelling invertebrates in waters less than 20 fathoms deep.

Before the current net bans were enacted by the California legislature, sea otters were drowning in high numbers (averaging roughly 100 animals per year) in large mesh entangling fishing nets set primarily for halibut. While these laws have reduced the number of otter drownings, they have not stopped them. For example, otters are still being caught in areas where closures have not been imposed. In addition, otters continue to drown in nets set illegally in closed areas.

Considering the staggering losses that the southern sea otter has experienced from incidental take, the negative impact of such take on the population, the natural vulnerability of the animals to net drownings, the small size of the population, and the fact that even when all taking is prohibited the otter still is suffering from illegal take, the MMPA prohibition on incidental take must be left intact for this depleted species. For the southern sea otter, *any* incidental take has a significant adverse effect.

Protecting southern sea otters from incidental take also is a key aspect of the ESA and MMPA recovery efforts. As early as 1980, the Marine Mammal Commission ("MMC") recommended to the U.S. Fish and Wildlife Service ("FWS") that a zonal management approach be implemented in which "zones" would be established (through translocation, if appropriate) where sea otters are secure from the threats of human activities. *See* Letter from Robert Eisenbud, MMC to Lynn A. Greenwalt, FWS (Dec. 2, 1980). This strategy also called for the designation of areas where otters would not be reintroduced because, among other factors, habitat is unsuitable, threats are too great, or conflicts with fisheries would be severe. FWS adopted this approach in its 1982 Southern Sea Otter Recovery Plan.

Originally intended to protect otters primarily from the threat of oil spills, zonal management assumed an added dimension in the early 1980's when it was confirmed that incidental take in set net fisheries was having a devastating effect on the southern sea otter. As a result, it became necessary to establish zones where otters would be protected from certain kinds of fishing.

The concept of providing conflict-free zones to protect the sea otter was implemented in Public Law No. 99-625, the so-called "Sea Otter Translocation Amendment" of 1986. That legislation facilitated the recovery program by clarifying the authority under which southern sea otters could be translocated. A primary purpose of the translocation was to ensure that the entire population would not be subject to an environmental catastrophe, such as a major oil spill.

As a part of the translocation program, Congress provided for the designation of a "management zone" where otters would not be allowed to colonize, where incidental take during legal fishing operations would not be prohibited, and where specified protections of the ESA would not apply. In doing so, Public Law No. 99-625 established the basis for zonal management in central/southern California—areas would be recognized around the translocation site and throughout the parent population range (including room for expansion) where otters would be fully protected and incidental take prohibited. In a separate area, a "no otter zone" would be established where otters would be removed by nonlethal means and fishing interests would not be subject to penalties for incidental take.

FWS implemented this program in 1987 by translocating otters from the mainland California coast to San Nicolas Island. The State of California joined in the efforts by prohibiting fishing nets and the discharge of firearms around the San Nicolas Island translocation site. As a result, sea otters are fully protected north of Point Conception and around their reoccupied habitat at San Nicolas Island.

Like the proposed environmental community/fishing industry proposal, the central/southern California zonal management program is the product of extensive negotiations among all affected interest groups and state and federal agencies. Honoring the understanding reflected in Public Law No. 99-625 is another important reason southern sea otters are not included in the limited exemption set forth in the 1988 environmental community/fishing industry proposal.

Like the southern sea otter, the Alaskan sea otter has been subjected to heavy exploitation in the past and was nearly extirpated by the fur trade. However, because the Alaskan sea otter has recovered more successfully than the southern sea otter, it is not listed under the ESA. Nonetheless, as recognized in the MMC's 1988 Alaska Sea Otter species account, individual population stocks remain subject to numerous serious threats, including incidental take.

Alaskan sea otters are not included in the proposal for, unlike the other marine mammal species that are covered, they have not yet received attention in an incidental take proceeding. Though most of the other species covered by the proposed limited exemption are subject to permits and authorizations that provide restrictions designed to reduce the effects of incidental take, no such protection is available for Alaskan otters. As a result, there are no permits or authorizations to extend or protections to apply. This is a problem that FWS must come to grips with in the near future.

In addition to keeping in mind the reasons sea otters are excluded, FSO requests the Committee to recognize that this proposal, like any other negotiated agreement, does not fulfill either side's desires completely. As the Committee reviews the proposal, FSO urges Members to consider the following points.

First, as a matter of clarification, the proposal does not authorize fishing in areas closed under state or federal law.

Second, in establishing mechanisms for interested parties to address questions concerning the status of species or stocks, ultimate responsibility must be retained by the Secretary. Under no circumstances should a forum be established in which biological determinations become subject to negotiation or dictated by economic and political considerations.

Third, the effectiveness of the MMPA depends on penalties that have "a bite." Insufficient fines or other penalties become an inconsequential cost of fishing.

Fourth, for many years, the southern sea otter has benefited from the guidance of an ESA Recovery Plan. FSO believes that other marine mammals would benefit from having a recovery plan requirement incorporated into the MMPA. Such a plan should address recovery aspects only, and not be tranformed into a multi-purpose management program designed to facilitate human activities that have adverse effects on protected marine mammals.

Finally, adequate observation, verification and reporting of incidental takes are essential. There is no excuse for anything less than full and accurate reporting and cooperation with verification efforts by all those involved in incidental take.

For many years, sea otters have been seriously affected by incidental take. FSO hopes that the lessons learned as a result of the sea otter's experience will find application in the effort to protect other marine mammals.

NATIVE TAKE

Lurking beneath the surface of the 1988 reauthorization has been the question of the proper scope of the MMPA's Alaskan Native take exemption. In recent years, FSO has paid close attention to this question.

The legitimate subsistence and handicraft uses made of marine mammals by Alaskan Natives are entitled to special protection. Although there historically has been little use of sea otters for subsistence or handicraft purposes, FSO does not oppose such takings as are consistent with the purposes of the Native take exemption and the biological objectives of the MMPA.

The question of authorized uses of sea otters for handicraft purposes has been settled by the recent decision in *Katelnikoff* v. *Department of the Interior*, 657 F. Supp. 659 (D. Alaska 1986). In that case, which FSO participated in, the court properly construed the MMPA and its legislative history to allow the taking of sea otters for handicraft purposes only for items that were customarily and traditionally produced by Alaskan Natives prior to 1972. Shortly after enactment of the MMPA, FWS attempted to identify these and other marine mammal handicraft items, but was discouraged from doing so by the Native community. The high value of otter pelts and increasing Native interest in taking otters (up from four verified takes in 1982 to 555 in 1986) has caused FWS to renew its efforts to define legitimate handicraft uses of sea otters. FSO supports steps to address this question through administrative action.

Concern also has been expressed by FWS and others concerning the flexibility of the MMPA to deal with population declines that may be caused, or contributed to, by Native harvest. The MMPA does not allow FWS to regulate most aspects of Native take, unless the species or stock is depleted. As a general management principle, this could bring about the undesirable result of preventing FWS from taking necessary actions to prevent a marine mammal from becoming depleted. As is recognized by the Native take provisions of the ESA and the MMPA's state management requirements, such authority may be necessary to protect affected populations.

FSO believes that this issue deserves careful consideration. In the case of the Alaskan sea otter, the overall abundance of the species in Alaskan waters (100,000–150,000 animals) is deceptive. The MMPA's goal is to protect individual stocks and maintain them at optimum sustainable population levels. As pointed out in the MMC's 1988 Alaskan Sea Otter species account, 15 sea otter population stocks have been identified in Alaska, some in locations where Native take has been increasing rapidly. The possibility that Native harvest, either separately or combined with other kinds of thake, may cause a population stock decline that cannot be controlled calls for carefull consideration of the need for a management mechanism that can respond to problems before they become serious. To this end, FSO believes it would be appropriate for the Committee to direct affected agencies and interest groups to review this issue, define any problems that exist, and identify appropriate solutions that can be considered during the next MMPA reauthorization.

THE PERMIT SYSTEM

The MMPA provides limited exemptions from its taking prohibition when permits are issued for public display or scientific research. As a depleted species, the southern sea otter may be taken under permit only for scientific research. To ensure that marine mammal stocks are not adversely affected and that the well-being of individual animals is provided for, the MMPA requires public review of all permit applications and careful oversight by the MMC. FSO strongly supports this system. Our extensive experience with sea otter permits has demonstrated the need for full public review opportunities and MMC oversight before, and after, the proposed take.

Two changes have been suggested to the MMPA permit system. First, it has been suggested that authority should be available to issue emergency permits, *without* full public review, to preserve "unique research opportunities" or protect adversely affected stocks. FSO considers this change unnecessary and undesirable.

From our involvement in the review of sea otter research permits, we are confident that there are few, if any, valid research opportunities that are foregone by requiring permit applicants to comply with the public review process. On the other hand, recommendations frequently are produced during the mandatory public review that benefit the affected stocks, ensure humane treatment of the animals, and enhance research opportunities and techniques.

FSO is grateful for the many important advances in our understanding of sea otter biology and population dynamics that have resulted from scientified research. We believe, however, that providing reseachers with discretion to take marine mamals in "unique" situations will create a loophole that is far too large for the limited benefits it could produce. Moreover, because section 109(h)(1) already provides authority to take individual marine mammals for their own protection and welfare, we do not believe that additional authority is necessary for that purpose.

Consideration also has been given to creating a new category of permits for takings that are necessary for recovery purposes, but that do not qualify as scientific research. FSO supports this proposal, provided that: (1) restrictions are imposed to ensure that such takings advance a legitimate recovery purpose, as defined in agency plans and programs; and (2) if maintenance in captivity is necessary, that the animals and their progeny are adequately cared for and released to the wild as soon as it is feasible to do so.

Thank you for considering our views. FSO supports a strong MMPA. We look forward to working with this Committee during the 1988 reauthorization, and in the future, to advance the MMPA'a purposes and policies.

STATEMENT OF NANCY D. HICKS, ANIMAL PROTECTION INSTITUTE OF AMERICA

The above organizations appreciate this opportunity to comment on the Marine Mammal Protection Act Reauthorization on behalf of our more than two million members and constituents nationwide.

Though the Marine Mammal Protection Act (MMPA) prohibits the taking and importation of marine mammals and marine mammals products, special exemptions are allowed for either scientific research or public display, if a series of criteria are met. An exception is also made for the incidential taking of marine mammals in fishing operations, which also requires a permit.

Unfortunately, as currently administered, the Act no longer provides inhibitions to questionable practices except for the burden of properly completing the paperwork required. The permit review process has become so automatic and routine that only when there is a truly outrageous permit application or when there is a treat of litigation will an application be rejected. Of 295 research applications received as of March 31, 1986, which were sufficiently serious to be forwarded to the Marine Mammal Commission, only two were denied. Admittedly, many of the applications with non-lethal methods of research or with animals who died when stranded, but the killing of 27,363 animals was approved. The figure does not include animals killed abroad from which tissues were later imported. In the case of display permits, of 261 applications fowarded to the Marine Mammal Commission, only 8 have been denied. Many were approved in spite of serious deficiencies.

SCIENTIFIC PERMITS

Congress wrote detailed statutory language relating to the permitting process, rather than merely leaving the promulgation of regulations to the discretion of the Secretary. We are very concerned that the National Marine Fisheries Services (NMFS) has at times ignored these requirements when granting scientific permits. Under Section 104(b) of the Act, a minimal set of criteria are laid out. The application must specify, "(A) the number and kind of animals which are authorized to be taken or imported, [and] (B) the location and manner (which manner must be determined to be humane) in which they may be taken, or from which they may imported . . ." Yet, two permits were issued in the last year and a half requested "all cetacean species" and "all pinniped species" anywhere in the world. Not knowing what they might receive under such an all-encompassing permit, the applicants could not possibly describe the research that they intended to perform.

In the permitting process, little or no attention is paid to the underlying necessity for the research in question. While many interesting things could be learned about marine mammals, it is imperative to apply much more stringent criteria in the case of protected species, relating to the usefulness of such research and the value for the protected species itself. This is particularly relevant in the case of lethal research. Indeed, NMFS's own regulations state that:

> In determining whether to issue a scientific research permit, the Secretary shall, among other criteria, consider whether the proposed taking or importation will be consistent with the policies and purposes of the Act; and whether

> the granting of the permit is required (emphasis added) to further a bona fide and necessary or desirable scientific purpose, taking into account the benefits anticipated to be derived from the scientific research contemplated and the effect of the proposed taking or importation on the population stock and the marine ecosystem.

It is apparent that a permit which does not specify the species or the type of research cannot meet such a standard, though such permits have been granted. It is apparent that research which adds to the general body of biological knowledge but does not specifically benefit the species taken cannot meet such a standard, but, again, such permits have been granted. NMFS should systematically and rigorously enforce these standards and regulations for the granting of scientific permits.

NMFS has been in the vanguard of international attempts to set standards for lethal"reasearch" in the whaling operations of other countries. At last year's meeting of the International Whaling Commission (IWC), a resolution sponsored by the United States was passed. The following criteria for such research were among its provisions:

1. The research addresses a question or questions that should be answered in order to conduct the comprehensive assessment or to meet other critically important research needs;
2. The research can be conducted without adversely affecting the overall status and trends of the stock in question or the comprehensive assessment of such stock;
3. The research addresses a question or questions that cannot be answered by analysis of existing data and/or use of non-lethal research techniques; and
4. The research is likely to yield results leading to reliable answers to the question or questions being addressed.

It approaches hypocricy for NMFS to push hard for rigorous scientific standards for other countries, while not demanding the same for research performed in the United States.

The aforementioned regulations also provide that the effect on individual stocks and marine ecosystems be determined. Unfortunately, applicants need only pay lip service to this requirement by citing the size of the population and pointing out that the proposed research will only involve a small number of animals. No detailed population analyses are required. Recently, the Marine Mammal Commission expressed concern over the cumulative impact of public display and research permits on single stocks. Certainly, both lethal and non-lethal research can cause modifications in behavior and disrupt social structures. Only after being challenged in court did NMFS begin to pay attention to this requirement.

> Recommendations: More rigorous criteria should be set up for any research which involves the lethal taking of marine mammals. Attention needs to be given to the utility of such research. The standard that the research be required for a necessary scientific purpose should be strictly adhered to, and an assessment of the benefits of such research should be made. The burden of evidence should be placed on the permit applicant to prove the necessity of such research.

In the case of marine mammals which are listed as endangered or threatened under the Endangered Species Act or as depleted under the MMPA, an even more stringent standard is required. Permits for lethal research should not be granted where an individual from a listed species died from other than natural causes unless it can be demonstrated that the research will directly contribute to the recovery of the species or knowledge of the species population biology.

In the case of tissues imported from other countries, NMFS, which is part of the Department of Commerce, apparently has difficulty dealing with the well-established constitutional concept of the stream of commerce. They have basically issued a disclaimer of responsibility for all species legally killed in their country of origin. Such a standard is not sufficient, however. Most notably in the case of endangered species, it would be naive to assume that all countries have adequate laws for the protection of such species. The routine approval of scientific research import applications allows the importation of products from commercial kills even when those kills may be contributing to the further depletion of a species. Even the application of regulations of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is not sufficient because some countries are not members of CITES and others have taken reservations on specific species which exempt them from CITES regulations.

In some instances, the issuance of such permits may actually contribute to the demand or be used to justify a take. The latter was most vividly illustrated when the only scientist mentioned by name in the "research" proposal submitted by Ice-land to the International Whaling Commission dealing with the take of two endangered species was an American. Use of the loophole in the International Convention for the Regulation of Whaling has enabled several countries to continue commercial whaling under the guise of science. In such circumstances, the issuance of a research permit may be interpreted as implicit U.S. governmental approval of a lethal taking. It is the height of sophistry to argue (as individuals in NMFS have done) that a research permit is not directly involved in the take and that the two can be antiseptically compartmentalized.

There have also been procedural difficulties with the administration of this section of the Act. Although the law provides that hearings may be held if there are significant questions on a specific permit application, NMFS has developed a boilerplate response—almost invariably negative. Significant policy questions which had ramifications far beyond the individual permits apparently have not merited such a hearing. As examples of such policy questions, we would cite the first inclusion of sport fisheries under a general incidental take permit and the importation of tissues from whales taken in "research" hunts.

Recommendations: Research permits for imported tissues should take into account the conditions which made the tissues available in the first place. Other countries do not have laws as stringent as the MMPA, and marine mammal populations continue to decline in many parts of the world. The products should be treated as part of the stream of commerce with the assumption that the end user is part of a continual process. In the case of imported tissues, the same criteria should be used as if the animal had been killed within the jurisdiction of the United States. If an initial take does not meet such standards, e.g., impact of the take on individual stocks and the ecosystem, importation of tissues should not be permitted.

DISPLAY PERMITS

There have also been problems associated with the issuance of display permits for captive marine mammals. Some of these problems are attributable to NMFS and others to the standards set by the Animal and Plant Health Inspection Service (APHIS) of the Department of Agriculture or the enforcement of those standards by APHIS. As in the case of research permits, the approval process has become so routine that even questionable applications are routinely approved.

To illustrate some of the problems, a particularly egregious example from 1987 merits discussion. A permit to take bottlenose dolphins was issued to an applicant despite a previous record which included: Numerous prior deaths attributable to poor care; animals dying from ingesiton of foreign substances; dolphins kept in fresh water rather than salt water; dolphins succumbing to transportation stress; the capture of four dolphins only a year earlier, without a permit in direct violation of the law.

The example is illustrative of several problems. First, approval to take captive cetaceans has been granted despite grossly inadequate facilities. Second, insufficient attention is given to the previous record of applicants. If that record demonstrates mortalities of animals previously permitted, it should be a primary factor in determining whether or not a permit for additional animals should be granted. There are also animals which may not be suited for aquaria. If there is a consistent record of high mortality in captivity for a particular species, display permits for that species should not be granted. Finally, if an applicant has a record of serious violations of either MMPA or APHIS regulations, the agencies should not give them the opportunity to violate the law again.

One reason that inadequate facilities have been granted permits may be lack of adequate coordination between NMFS, the agency that issues the permits and APHIS, the agency charged with ensuring the welfare of the animals in captivity. Some coordination apparently takes place between NMFS and APHIS and we applaud that cooperation. However, NMFS, in its permitting role, has turned the entire job of site inspection and the storage of site records over to APHIS, to the extent that facility specifications are no longer required on permit applications. The facility simply notes its USDA license number on the application. This creates a system where records concerning the facility can be scattered across the country in various government offices. To get a truly complete picture of the institution and its practices, including capture methods for the various animals, stock assessments, facility specs and veterinary care records, either agency would have to go to at least two sources and possibly to a third, since some APHIS records are stored in regional offices. This division of information is likely to present problems in communication between the agencies. Indeed, in one case, an APHIS site inspection was used to grant a permit to a zoo in the state of Washington for dolphins. No one seemed to be concerned that the zoo was about to build an unheated tank. After the dolphins were brought to the tank, the temperature dropped to below freezing. One animal died and two others had to be rushed to another facility.

Recommendation: Record keeping and the entire permitting process should be reevaluated for the best possible coordination among NMFS, APHIS and the MMC. The informal interagency cross-checking now taking place should be broadened and formalized.

Statutory language should be added that the previous record of an applicant should be considered in issuance of subsequent permits.

The purpose of display permits under the MMPA is the education of the public concerning marine mammals. Applications often tout the notion that displays of marine mammals exist for the "public benefit". Yet, year after year, display permits are granted to completely commercial enterprises, such as private clubs and hotels. It is difficult to imagine that displaying these animals does anything to benefit the public; rather they are benefiting the owners of and investors in these highly profitable businesses.

Aquaria also point to their educational programs. We submit that the importance of public education in aquaria is entirely secondary to their potential as entertainment outlets and money-making ventures. After watching trained seals balancing balls on their noses or killer whales (orcas) splashing spectators or waving to the audience with their flippers, one is hard pressed to find any educational content in these shows. A similar view was expressed by the eminent wildlife expert, Dr. Stephen Kellert of Yale University in "Attitudes Toward Animals: Age-related development among children," published in the *Journal of Environmental Education.* In this study Dr. Kellert questioned 267 children in grades 2, 5, 8 and 11 concerning the kinds of animal-related activities in which they had participated within the previous two years. For instance, 93% of the students questioned had visited a zoo, 87% owned a pet, 87% had fished and 83% had learned about animals in school. Other activities, such as feeding birds, reading about animals in books and magazines, watching a television show about animals, hunting and trapping were also mentioned in the survey. The students were then tested concerning basic knowledge and attitudes about animals, including an attitude which Kellert terms "negativistic", an orientation characterized by "active avoidance of animals due to indifference, dislike or fear." In his findings, Kellert states:

> Particularly surprising were the relatively low knowledge scores of children who learned about animals in schools or who visited zoos. Moreover these two groups had the highest negativistic scale score. These activities thus appeared to exert little positive influence on children. Most zoological parks continue to fail to go beyond superficial entertainment toward instilling greater appreciation of animals among children . . .

In a speech entitled, "The Educational Potential of the Zoo and its Visitors," presented at the Conference on Informal Learning in Zoos at the Philadelphia Zoological Gardens on September 26, 1986, Kellert described some of the possible reasons for the lack of educational success when he stated:

> . . . education has and continues to be a minor objective of most zoos. I base this claim on a cursory examination of the typical allocation of resources at most zoos, on the kinds of personnel usually employed, on the prestige often associated with the function of education and on the sometimes superficial and even trivial consideration education receives at many zoological parks.

Studies similar to these have not been undertaken to see what effect visiting aquaria has on children's knowledge and attitudes toward animals. However, since most aquaria appear to devote even less of their time and resources to educational activities, we suspect the results of such a study would be similar to Dr. Kellert's.

Recommendation: A stronger definition of public education is needed and standards for level and content of education material should be set. Plans for educational programs should accompany permit applications.

Although NMFS requires that a schedule for the frequency of shows involving captive marine mammals be submitted with a permit application, there is little reason to believe that they question or even review this information as a part of the permit process. The animals of a current permit holder perform in shows for 30 minutes out of every hour from 9am to 6pm 362 days of year. There is no indication that NMFS or, for that matter, APHIS, has ever felt this situation warrants concern.

Recommendation: Standards should be set by both agencies to ensure the welfare of performing marine mammals. Time spent performing should be of reasonable duration and frequency, with ample time for rest between performances.

We also believe that insufficient attention is currently being given to the impact on stocks when animals are removed from the wild. As an example, orca pods in Puget Sound have not recovered to former levels despite total protection for almost fifteen years after several animals were removed for display. Certain cetacean species also have complex social structures which may be disrupted by the removal of animals. In granting permits for capture, NMFS needs to be mindful of potential impacts on the ecosystem and on populations remaining in the wild.

Recommendation: Cumulative impacts of removing animals from the wild should be part of the criteria for consideration of permit applications. Such standards should be extended to animals imported from abroad that were not born in captivity.

The suggestion has been made that Congress should change that MMPA to allow the capture of marine mammals from species designated as depleted for enhancing the propagation or survival of the species. We categorically oppose this change. No aquarium has shown that it can successfully propagate and restore to the wild even non-depleted species. Furthermore, we have never seen a serious proposal to do so. Until it can be demonstrated that such programs can, in fact, be developed with non-depleted species, we feel that no change is warranted in the Act.

Furthermore, the suggestion that depleted stocks can be restored by a captive propagation program is unrealistic. It would require that births and rehabilitation to the wild of literally thousands of animals before an impact could be made on any stock. We do not think, therefore, that there is serious concern over the status of the species, but rather such language has another purpose, i.e., the capture and display of depleted species.

It has been stated that such language would make the Act consistent with provisions of the Endangered Species Act. We are concerned that this provision has been abused in the ESA and that the purpose behind this language is often ignored. Use of the phrase, "to enhance the propagation or survival" is routinely used to justify permits under the ESA even when there is little connection to ensuring survival of the species in the wild. As an example of how this provision is used, several times a month, the Fish and Wildlife Service approves the importation of trophies taken in hunts in the Republic of South Africa. In each instance, the person applying for the permit argued that importation of the trophy would enhance the survival of the species. In light of experience with the ESA, we are opposed to putting a similar loophole in the MMPA when there is almost no possibility that institutions can affect the status of any stock.

To deal with the problem of orphaned animals (and also stranded animals), we would not oppose allowing institutions to take and care for them subject to two provisions: that efforts be taken to restore the animal to the wild when it is rehabilitated and the improvements discussed below for dealing with stranded animals are incorporated.

Recommendation: The MMPA should not be amended to allow display permits for take of depleted species.

Although standards for maintaining marine mammals in capitivity are set by APHIS under the Animal Welfare Act, they are far from adequate and need to be revised. The minimal standards for cetaceans are little short of scandalous. The minimum pool size for Group I cetaceans, which includes such species as bottlenose dolphins, beluga whales, orcas and pilot whales, is a diameter of 24 feet or two times the average adult length of the species, and a depth of six feet or one half the average adult length of the species. Such dimensions would hardly be adequate for a backyard swimming pool, and humans are not aquatic animals. Furthermore, the regulations provide that two animals may be confined in such a watery prison cell. Holding and training pools in which marine mammals may spend much of their time are not required to meet even these pitiful standards. Other standards such as sound baffling in pools where cetaceans are kept are entirely absent.

NMFS has a responsiblity to examine the adequacy of facilities when grating a permit, but deference is given to the standards (and records) of another executive department. Although the regulations have been promulgated under the aegis of the Animal Welfare Act, the purposes of the MMPA cannot be fulfilled unless those regulations are overhauled.

A major deficiency in the regulations concerns facilities which rescue stranded marine mammals and attempt to nurse them back to health. At the present time, these facilities are not required to obtain a USDA exhibitor license, as facilities which house health marine mammals are. Licensing would ensure that these stranding facilities are inspected yearly by APHIS veterinarians. In addition, some of these facilities have held stranded animals for extended periods of time, all the while allowing public display of the animals. We believe that if health animals deserve the protection that APHIS monitoring affords them, sick animals deserve the same, if not more, consideration.

Recommendation: Any facility which houses marine mammals, even temporarily, should be required to be licensed and inspected by APHIS.

Records indicate that the incidence of stress-related illnesses, such as ulcers, in captive marine mammals, may be high. The yearly Marine Mammal Inventory Report required of facilities is not sufficient to provide an "early warning system" of illnesses in the animals. Semi-annual status reports, including veterinary examinations, should be required for all marine mammals held in captivity. Any veterinary treatment of the animal within the reporting period should be detailed in the status report.

Recommendations: Twice-yearly status reports on all captive marine mammals should be submitted to NMFS and APHIS.

It would seem to go without saying that attending veterinarians in facilities which house marine mammals should be trained in marine mammal medicine. The uniqueness of marine mammals—their size, the logistical problems of their handling, the very nature of their marine environment—makes marine mammal medicine very different from any other veterinary specialty. Yet NMFS has no requirement that attending veterinarians at aquaria be anything other than a Doctor of Veterinary Medicine. The same credentials are required or APHIS veterinarians.

Recommendations: Training in the treatment of marine mammals should be necessary for all the veterinarians charged with insuring the health and welfare of captive marine mammals. This should include both attending vets at the facilities and APHIS Veterinary Services inspectors.

We believe that there is absolutely no justification, educational or otherwise, for traveling circuses and seasonal facilities which include exhibits of marine mammals. The incidence of stress-related illnesses in captive marine mammals who reside continuously at only one facility has already been mentioned. To subject these animals to the stress inherent in their twice yearly seasonal transport for what can only be described as dubious educational benefit is not justified.

Recommendation: Display permits should be granted only to facilities which house marine mammals on a year-round basis. Seasonal transport of marine mammals should not be permitted.

We have also heard rumors of a problem which could arise in the future. For lack of a better term, it could be called marine mammal "laundering". In order to avoid more stringent U.S. requirements on the taking of animals, they may be captured abroad and cached there for a couple of years. When a marine mammal permit is applied for, the animals are listed as animals held in captivity rather than as animals taken from the wild. All too often, legislative action is taken only after a problem occurs. In this instance, it may be relatively easy to prevent a problem before it occurs.

Recommendation: Animals not born in captivity should be treated as if they were taken from the wild regardless of where they have been temporarily housed.

We are extremely concerned about recent applications for permits to capture dolphins for the purpose of using them for so-called "swim with dolphins" programs. Two recent applications, one by a private club and one by a resort hotel, hint at the commercial value that this kind of enterprise could have. On April 1, 1988, NMFS held a public meeting to allow testimony concerning the need for standards for this kind of program. Such standards would protect the public from danger and the animals from exploitation. At that hearing, NMFS announced that it would not issue any further "swim with dolphin" permits until standards were set. We commend NMFS for its far-sightedness in this matter. The idea of swimming with dolphins may prove so appealing to the public that the current trickle of applications to NMFS will soon turn into a torrent.

Recommendation: Strict standards for "swim with dolphin" programs should be developed by NMFS before further permits for these enterprises are issued.

OTHER PERMITS

It has been shown that whale watching cruises can have an impact on the whales being observed. In vulnerable area, it has been necessary to formulate regulations for these enterprises. Regulations to ensure the protection of these animals should be extended to other areas.

Recommendation: Language should be added to the MMPA to require all commercial whale watching boats be subject to the permit process.

STATEMENT OF MICHAEL SANDLOFER, EXECUTIVE DIRECTOR OF NORTH WIND UNDERSEA INSTITUTE

Mr. Chairman and members of the study; I am Michael Sandlofer, Executive Director of North Wind Undersea Institute. North Wind is an environmental and educational organization with nearly three thousand dues-paying members. Our headquarters and marine museum are located in City Island, The Bronx, New York. At our museum, we teach tens of thousands of people annually, primarily children, about the great whales and mankind's interrelationship with them. We also show people the tremendous intellectual and behavioral potentials latent in marine mammals, as demonstrated by the three harbor seals which we maintain under a NMFS permit at our facility.

North Wind has expended substantial efforts over several years developing more effective means of assisting stranded and entangled animals. More recently, we have been involved in legislative, treaty and regulatory issues affecting marine mammals. Thus, the MMPA is central to our mission. We welcome this opportunity to offer the following testimony, on behalf of North Wind and American Human Association, Animal Protection Institute of America, Center for Environmental Education, Cetacean Society International, Defenders of Wildlife, Friends of the Earth, Greenpeace USA, Institute of Diving, International Wildlife Coalition, Sea Shepherd Conservation Society and The Whale Center.

THE PROBLEM

In the course of its activities, North Wind has concluded that the MMPA, as currently drafted and administered, should be strengthened in what might generically be called the area of intentional takings. While the statute requires such talkings to be "humane," it has become clear to us that this requirement is not achieving its purpose as well as it could.

One context where a clearer statement of the Act's requirements is necessary is takings for purposes of scientific reseach, under Section 104 of the Act. Just last fall, the Soviet All-Union Scientific Research Institute of Fisheries and Oceanography was granted a permit to kill 200 bearded seals and 200 walrus to study such things as abundance and distribution. North Wind filed comments with NMFS and FWS calling for use of nonlethal means, such as a live trap, but to no avail. Apparently, many people believe that the only way to study pinnipeds safely at sea is to shoot them. We believe that where nonlethal methods are feasible, they should be used. Development of such alternatives should not be difficult; indeed, even with our limited funding we have been able to design an effective live trap for pinnipeds, which we have discussed with NMFS, and which we hope to demonstrate in the near future. Opposition to lethal research methods is only likely to increase, and thus accelerated development of nonlethal techniques would help accelerate the progress of scientific research.

We also believe that far more justification than is currently required should be provided before animals are killed for research purposes. In the IWC, the United States has been a leader in the movement away from unnecessarily lethal research. Certainly our domestic laws should at least be consistent with this stance, if not tougher. Only then can the MMPA also serve as an example to the world of our concern for marine mammals.

The MMPA's goal of humane intentional takings could also be implemented more fully in the area of takings of marine mammals by federal, state or local authorities of NMFS designees (*i.e.,* "letterholders"), under Section 109(h) of the Act. At present, euthansia is a perfectly permissible way to "protect" stranded marine mammals under this section. It is frequently used, in part because of a perceived lack of means for releasing or rehabilitating these animals humanely. Yet such nonlethal technology is now available, has been proven to be a viable alternative. It is already in common use in Australia, where lethal means have virtually disappeared. North Wind has developed a system involving noninjurious harnesses and inflatable jacks and sleds which it has also demonstrated in Baja California.

Rather than promoting the use of available technology, the MMPA in its present form discourages the development of better, more humane techniques. Euthanasia should be a last resort. It has been argued by some that stranded animals want to die. This hypothesis can only be tested, however, if we can get a significant number of stranded animals back into the water quickly and without injury.

NORTH WIND'S PROPOSED SOLUTIONS

In the spirit of strengthening the MMPA's implementation of its goals, North Wind proposes three slight modifications to the Act. The three sections we propose to modify are set forth below, with our amendments underlined and deletions shown in brackets.

Our first proposal is to the definition of "humane," as that term is used in both Sections 104(b) and 109(h). At present, it calls for use of the method of taking which causes the least possible degree of gain and suffering practicable. See Section 3(4) of the Act, 16 U.S.C. § 1362(4).

Under our proposal, the Act would make clear that "humane" takings must also use the best *technology* available. Avoidance of pain and suffering is essential, but not enough. Any disturbance to the animal should be minimized. We also propose deleting "practicable," since "possible" adequately serves to limit the definition. These modifications should help facilitate an ongoing reevaluation of what takings are really humane.

PROPOSAL 1

Section 1362—Definitions

(4) The term "humane" in the context of the taking of a marine mammal means [that method] *those methods and technologies* of taking which involve the least possible degree of pain, [and] suffering [practicable] *or disturbance* to the mammal involved.

Our second proposed modification is to Section 104(b), governing the requisite provisions for permits (16 U.S.C. § 1374(b)). Our proposal would provide that no permit for lethal research may be issued unless the applicant can demonstrate both that no feasible nonlethal means exists, and also that the information sought cannot be gathered nonlethally. Combined with a requirement that research takings employ the best technology available, this modification should discourage unnecessarily lethal research methods, while preserving legitimate research objectives.

PROPOSAL 2

Section 1374(b)—Requisite provisions

Any permit issued under this section shall—

(1) be consistent with any applicable regulation established by the Secretary under section 1373 of this title, and

(2) specify—

(A) the number and kind of animals which are authorized to be taken or imported,

(B) the location and manner (which must be determined by the secretary to be humane) in which they may be taken, or from which they may be imported,

(C) the period during which the permit is valid, and

(D) any other terms or conditions which the Secretary deems appropriate. *[No permit issued for purposes of scientific research shall authorize a lethal method of taking unless the permit applicant can demonstrate (i) that feasible nonlethal methods do not exist, and (ii) that the information to be sought cannot be gathered nonlethally.* In any case in which an application for a permit cites as a reason for the proposed taking the overpopulation of a particular species or population stock, the Secretary shall first consider whether or not it would be more desirable to transplant a number of animals (but not to exceed the number requested for taking in the application) of that species or stock to a location not then inhabited by such species or stock but previously inhabited by such species or stock.

Our third proposed modification is to Section 109(h), governing takings by federal, state, or local authorities or NMFS designees (16 U.S.C. § 1379(h)). Under our proposal, euthanasia could be used only in highly unusual circumstances: when the on-scene person responsible concludes that *no* feasible means exists for returning the animal to the water or rehabilitating it, or that death is imminent. This proposal would not diminish the responsibility or authority of the responsible person, but it would ensure the greatest possible use of nonlethal methods.

PROPOSAL 3

Section 1379(h)—Taking of marine mammals as part of official duties

Nothing in this subchapter shall prevent a Federal, State, or local government official or employee or a person designated under section 1382(c) of this title from

NORTH WIND'S PROPOSED SOLUTIONS

In the spirit of strengthening the MMPA's implementation of its goals, North Wind proposes three slight modifications to the Act. The three sections we propose to modify are set forth below, with our amendments underlined and deletions shown in brackets.

Our first proposal is to the definition of "humane," as that term is used in both Sections 104(b) and 109(h). At present, it calls for use of the method of taking which causes the least possible degree of gain and suffering practicable. See Section 3(4) of the Act, 16 U.S.C. § 1362(4).

Under our proposal, the Act would make clear that "humane" takings must also use the best *technology* available. Avoidance of pain and suffering is essential, but not enough. Any disturbance to the animal should be minimized. We also propose deleting "practicable," since "possible" adequately serves to limit the definition. These modifications should help facilitate an ongoing reevaluation of what takings are really humane.

PROPOSAL 1

Section 1362—Definitions

(4) The term "humane" in the context of the taking of a marine mammal means [that method] *those methods and technologies* of taking which involve the least possible degree of pain, [and] suffering [practicable] *or disturbance* to the mammal involved.

Our second proposed modification is to Section 104(b), governing the requisite provisions for permits (16 U.S.C. § 1374(b)). Our proposal would provide that no permit for lethal research may be issued unless the applicant can demonstrate both that no feasible nonlethal means exists, and also that the information sought cannot be gathered nonlethally. Combined with a requirement that research takings employ the best technology available, this modification should discourage unnecessarily lethal research methods, while preserving legitimate research objectives.

PROPOSAL 2

Section 1374(b)—Requisite provisions

Any permit issued under this section shall—

(1) be consistent with any applicable regulation established by the Secretary under section 1373 of this title, and

(2) specify—

(A) the number and kind of animals which are authorized to be taken or imported,

(B) the location and manner (which must be determined by the secretary to be humane) in which they may be taken, or from which they may be imported,

(C) the period during which the permit is valid, and

(D) any other terms or conditions which the Secretary deems appropriate.

[No permit issued for purposes of scientific research shall authorize a lethal method of taking unless the permit applicant can demonstrate (i) that feasible nonlethal methods do not exist, and (ii) that the information to be sought cannot be gathered nonlethally. In any case in which an application for a permit cites as a reason for the proposed taking the overpopulation of a particular species or population stock, the Secretary shall first consider whether or not it would be more desirable to transplant a number of animals (but not to exceed the number requested for taking in the application) of that species or stock to a location not then inhabited by such species or stock but previously inhabited by such species or stock.

Our third proposed modification is to Section 109(h), governing takings by federal, state, or local authorities or NMFS designees (16 U.S.C. § 1379(h)). Under our proposal, euthanasia could be used only in highly unusual circumstances: when the on-scene person responsible concludes that *no* feasible means exists for returning the animal to the water or rehabilitating it, or that death is imminent. This proposal would not diminish the responsibility or authority of the responsible person, but it would ensure the greatest possible use of nonlethal methods.

PROPOSAL 3

Section 1379(h)—Taking of marine mammals as part of official duties

Nothing in this subchapter shall prevent a Federal, State, or local government official or employee or a person designated under section 1382(c) of this title from taking, in the course of his duties as an official, employee, or designee, a marine mammal in a humane manner [(including euthanasia)] if such taking is for—

(1) the protection or welfare of the mammal,
(2) the protection of the public health and welfare, or
(3) the nonlethal removal of nuisance animals,

and, in any case in which the return of the mammal to its natural habitat is feasible, includes steps designed to achieve that result. *Euthanasia shall be limited to highly unusual circumstances, and shall be employed only if the official, employee or designee concludes that there is no feasible means of returning to the water or rehabilitating the mammal, or that death is imminent.*

Mr. Chairman, North Wind's experience has shown us that the American public supports preserving the lives of marine mammals which are taken for scientific research, or are stranded, where ever that is possible. Our experience has also shown us that this possibility could be realized more often than it has been, if available technology and ingenuity were applied. We believe the MMPA should help maximize this realization.

STATEMENT OF STEPHEN SPOTTE AND CAROLYN P. KELLY, SEA RESEARCH FOUNDATION, INC. LABORATORY OF MARINE ANIMAL HUSBANDRY

PUBLIC DISPLAY PERMITS AND THE MARINE MAMMAL PROTECTION ACT

In a document submitted for the record before this subcommittee on 19 May, a consortium of animal protectionist organizations criticize the procedure by which zoological institutions (e.g., aquariums and zoos) obtain permits to display marine mammals. The document suggests amendments to the Marine Mammal Protection Act that, on close examination, would (1) subtract significant public benefits (an estimated 100,000,000 million Americans visit aquariums and zoos annually), (2) serve only to further a distorted perception of wildlife, and (3) make the Act even more stringently protectionist. The only amendments that should be considered are those that reflect modern wildlife management policies.

Before discussing the document, some of the underlying principles that precipitated its submission should be brought to light. Zoological institutions and animal protectionists clearly stand at opposite philosophical poles. The animal protectionists' position was stated succinctly at a public meeting organized by the Office of Protected Resources and Habitat Programs of the National Marine Fishery Service on 1 April 1988. David Hebert, speaking on behalf of the Humane Society of the United States, stated." First of all, one of the main problems is we disagree totally with taking any wild animals out of the wild." The animal protectionists are thus opposed to the keeping of animals in capitivity under any circumstances. Zoological institutions feel differently, although both sides have in common a concern for animal welfare.

In pursuing the implementation of their philosophy, the animal protectionists have completely misinterpreted the Marine Mammal Protection Act of 1972, which is administered by the National Marine Fisheries Service (the Service). The meaning and intent of the Act is clearly to protect species and population stocks of marine mammals *in the wild* and develop future resource management policies. The Act declares a moratorium on the taking and importing of marine mammals and marine mammal products, but allows limited exceptions for public display, scientific research, native subsistence and take incidental to commercial fishing. The Act provided funds to establish a Marine Mammal Commission (the Commission) and a Committee of Scientific Advisers on Marine Mammals (the Advisers). Reference throughout the Act is to "species" and "population stocks" of marine mammals. Nowhere does the language suggest that care and maintenance of individual animals in captivity are the concern of the Act.

In contrast to the Marine Mammal Protection Act, the Animal Welfare Act of 1975 is administered by a separate agency (the Animal and Plant Health Inspection Service, APHIS) and regulates captive—not wild—animals. Prior to 1979, provisions of the Animal Welfare Act pertained mostly to rabbits, guinea pigs, nonhuman primates, and other animals kept in laboratories for research purposes. An expanded version of the Animal Welfare Act was enacted in September 1979. The new portions deal exclusively with captive marine mammals, establishing rigid, comprehensive standards for the size and nature of enclosures, environmental quality, food handling, transport, and humane treatment. We shall refer to these collectively as "husbandry." Compliance with the Animal Welfare Act is monitored through inspections by APHIS, and all facilities that display marine mammals must be licensed—and thus certified—by APHIS. The marine mammal section of the Animal Welfare Act is the most stringent piece of animal welfare legislation ever enacted by Congress.

Through the years animal protectionist organizations have managed to influence the interpretation and administration of the Marine Mammal Protection Act and have pressured the Commission, the Advisers, and the Service to become involved with control of individual marine mammals (and their progeny) *after* they have been brought into captivity. This is accomplished insidiously through the permit process. As a result public display facilities have been forced unfairly to comply with standards set by two federal agencies, one set enacted properly and the other arbitrarily on an *ad hoc* basis. The animal protectionists' document attempts to perpetuate the belief that captive marine mammals fall under the jurisdiction of the Marine Mammal Protection Act when clearly they do not.

THE ANIMAL PROTECTIONIST DOCUMENT

We shall now address statements and accusations made by the animal protectionists in sections of their document that deal with public display and the obtaining of public display permits.

On page 7 of their document the animal protectionists have cited what they consider to be a "particularly egregious" example of a 1987 permit application. We are familiar with the unnamed facility. None of the five accusations is based on fact. Specifically,

(1) There is no evidence that "numerous prior deaths [were] attributable to poor care."

(2) Captive animals die occasionally from ingestion of foreign objects. However, it has been shown repeatedly that marine mammals in the wild ingest stones, seaweed, and bits of flotsam for no apparent reason. Several reports have been published on the subject. To date, no one has satisfactorily explained "why certain species (and individuals) of marine mammals have a propensity to ingest substances without obvious food value. At the facility in question, just three animals died over a 20-year period from ingestion of foreign objects.

(3) The animal protectionists would have us believe that dolphins require a constant source of saline water, but this is false. Bottlenose dolphin can live for weeks in freshwater. Along the east and Gulf coasts, pods of bottlenose dolphins regularly travel many miles up rivers, often staying for days. There are numerous published reports and sightings of dolphins in rivers, lakes and low-salinity estuaries. Dolphins at the facility in question were kept in freshwater swimming pools for only 36 hours during a hurricane, and with the permission of the Service.

(4) We have never seen "transportation stress" defined and doubt that a definition exists. The term stress has specific physiologic meaning. It refers to a sequence of demonstrable, hormonal-induced responses.

(5) The capture of four dolphins without a permit was an accident. Both NMFS and the applicant were in error. The matter was resolved openly and to everyone's ultimate satisfaction.

It simply is not true that ". . . approval to take captive [sic] cetaceans has been granted despite grossly inadequate facilities." Any facility requesting a public display permit must first receive approval from APHIS, and such approval must be granted before further processing of the application by the Service and the Commission. APHIS has authority under the Animal Welfare Act to see that inadequate facilities do not receive public display permits. APHIS can also require inadequate facilities to upgrade their husbandry standards and, if necessary, even force them to close.

A facility's animal mortality record is already considered by APHIS in the permit application process. Mortalities must be explained to the satisfaction of APHIS inspectors and veterinarians, ad necropsy reports (humans are autopsied, animals necropsied) signed by the attending veterinarian must be current and available for inspection at all times. The argument that an institution's mortality record is not considered in the permit process is baseless. Furthermore, the mortality rate, (so-called) never tells the whole story. Death is a natural event. The only thing that should concern the regulatory agencies—and even then only APHIS, the only agency with jurisdiction over captive marine mammals—is whether the deaths resulted from improper care. Despite having no jurisdiction under the MMPA over captive animals, the Service requires submission of detailed necropsy reports for all marine mammals that die at public display and research facilities. Permit applications are not processed until a report has been filed with the Service for every animal death since the last application or the end of the previous calendar year, whichever is more recent.

The Commission routinely delays decisions on permit applications because of so-called "incomplete" necropsy reports. A report submitted without a definitive "cause of death" is considered incomplete. Commission policy also requires applicants to submit histopathology reports and clinical records. In addition, if the Commission learns that an animal has died *after* the application has been received, processing typically is delayed until a necropsy report describing the recent death has been submitted. Cause of death, however, is often not known or unknowable.

Histopathology reports go beyond gross findings at necropsy and describe pathologic changes at the cellular and tissue level. A typical request, involving several rounds of letters, includes profiles of hematology and blood chemistry and the results of routine microbiologic cultures that in sum comprise a system of records developed by attending veterinarians and husbandry personnel on every captive marine mammal while it is alive. The information is incorporated into a program of preventive and clinical medicine and used by the attending veterinarian in making decisions. The Animal Welfare Act requires that an approved facility have a veterinarian in charge. What the Commission attempts to do with the information requested in necropsy and histopathology reports is to substitute its judgment for that of the veterinarian in charge, somehow assuming that the Advisers can assess circumatances of a death secondhand from the documentation provided and do it more effectively than qualified personnel who performed the necropsy.

The requirement for submission of necropsy and histopathology reports and clinical histories for captive animals is unrelated to the Act's purpose of protecting species and populations. The animal, once removed, is no longer part of a wild population, and its subsequent fate bears no relationship to the fates of others of its kind in the wild state. It is noteworthy that institutions that maintain endangered and threatened species are not subject to such surveillance and comprehensive reporting requirements.

The animal protectionist document argues that certain species of marine mammals ". . . may not be suited for aquaria. If there is a consistent record of high mortality in captivity for a particular species, display permits for that species should not be granted." Quite the contrary. Permits for difficult species should be granted to advance knowledge of wildlife. Aquariums have made enormous strides in just the last decade. Many species considered difficult to maintain in the 1970s are now kept routinely, and some have even mated and produced healthy offspring. Animal husbandry is like any other field of human endeavor: advances can be made only if windows of opportunity remain open. Instant and satisfactory results are seldom attained.

The paper goes on to say that applicants with ". . . a record of serious violations of either [the Marine Mammal Protection Act] or APHIS regulations [should not be given] the opportunity to violate the law again." This statement suggests pervasive criminal intent by aquariums and zoos as well as collusion on the part of federal regulatory agencies. This is not true.

The animal protectionsits state that ". . . NMFS [the Service], in its permitting role, has turned the entire job of site inspection and the storage of site records over to APHIS, to the extent that facility specifications are no longer required on permit applications." Congress—not the Service—turned over the responsibility of site inspection and record storage to APHIS when it amended the Animal Welfare Act. Among the stipulations of the Animal Welfare Act is one for minimum space. Facility specifications are not required on applications because APHIS inspectors determine before an application is processed whether the applicant conforms with these requirements. Forcing the applicant to provide them again would be redundant, resulting only in unnecessary paperwork for everyone. The record-keeping system of the Service and APHIS is adequate and meets the requirements of both the Marine Mammal Protection Act and the Animal Welfare Act.

On page 9 the animal protectionists state, ". . . the purpose of display permits under the MMPA is the education of the public concerning marine mammals." This is the purpose the animal protectionist coalition would like to see interjected into the Marine Mammal Protection Act. However, the Act has no such standard, nor should it. This statement again illustrates the philosophy of the coalition. Its basic premise is that no animal should be taken from the wild and placed into captivity. However, because the law provides for such taking, the coalition advocates restricting the purposes for which animals may be taken from the wild, hoping that all legitimate purposes eventually will be eliminated. To achieve this objective the animal protectionists have proposed restricting display permits to institutions that educate the public about marine mammals. The caveat, of course, is a rigid and restrictive definition of "education."

Another political maneuver used routinely by animal protectionists is to establish a dichotomy between commercial and nonprofit organizations. On page 9 of their document they have attacked what they call the "completely commercial enterprise" and state that such facilities are not educational. This is faulty logic. The structure of an organization is unrelated to the educational value of any programs provided. Their message is clear: making money is dirty business and should not accompany any display of marine mammals.

To reinforce the opinion that marine mammals demonstrations are not educational the animal protectionists cites a report published by Stephen R. Kellert of Yale University on attitudes of children toward animals, although the interpretation of Keller's findings are inaccurate and taken out of context. Contrary to what is implied, Kellert never mentioned marine mammal performances, much less their educational value. In fact, marine mammals were not mentioned at all. Kellert concluded that children's attitudes toward animals are complex, depending greatly on age, ethnicity, geographic place of residence, gender, socioeconomic status, and experience. The "negativistic" attitude was found most frequently in urban children; in other words, children who have the *least* direct contact with animals. The quotation from Kellert's report at the top of page 10 ends with the word children; the rest of the sentence has been purposely omitted. The complete sentence reads, "Most zoological parks continue to fail to go beyond superficial entertainment toward instilling greater appreciation of animals among children, while most learning about animals in school appears to be so divorced from direct experience with animals and the natural environment that little basic knowledge results." In using only the first part of the sentence the animal protectionists would have us believe that Kellert attributes the low level of knowledge about animals solely to aquariums and zoos, when this is not the case at all. Considering that children spend more time participating in other activities than visiting zoological institutions, most of the blame rightly belongs with society in general and the public education system in particular.

Kellert then stated: "More encouraging activity results were found among children who birdwatched, belonged to animal-related clubs, or hunted. These children were generally more appreciative, knowledgeable, and concerned about animals. These results suggest the positive value of direct, participatory contact between children and animals." Clearly, birdwatching and whalewatching are analogous activities, but the animal protectionists would, given the opportunity, eliminate whalewatching. Animal-related clubs can be compared directly with many membership activities sponsored by aquariums and zoos.

At a time when the quality of public education in America is being questioned at all levels, it seems ludicrous to single out aquariums as doing a generally poor job. It must be remembered that school attendance is the full-time occupation of students, not visiting aquariums. Retention of facts, although considered by some to represent a valid measure of classroom achievement, is of secondary importance in museum education. The real criterion, as stated by Kellert, is ". . . toward instilling greater appreciation of animals among children. . . ." Aquarium educators recognize the distinction, and programs that emphasize natural history instead of biology fill a void that otherwise remains empty.

Claims by animal protectionists that cognitive studies have not been undertaken at aquariums is not true. A controlled study at one of our institutions demonstrated that fourth-graders retained significantly more information when live animals were incorporated into classroom presentations. Although the author of the animal protectionist document may "suspect" that aquarium educators typically fail in their tasks, the facts clearly do not support these suspicions. If governmental agencies are granted authority to establish and judge the criteria for education programs in our zoological institutions, a large measure of freedom would be subtracted from everyone. This is clearly not the role of government, either in our schools or public institutions.

In reference to pages 10 and 11 of the animal protectionists document, although the Service requires a schedule of public performances from the applicant, the requirement probably is without authority. The Act does not give the Service authority over marine mammals after they have been brought into captivity. Nonetheless, the coalition recommends that standards be set to ". . . ensure the welfare of performing marine mammals. . . ." This assumes a priori that a rigorous schedule of performances is tiring. In other documents the same organizations point to the sizes of pools used to house marine mammals and claim that they provide inadequate room to exercise. We find this inconsistency illogical. Animals that must surface to breathe around the clock, that survive gales, wind-blown spray, currents and surge, cold, and other hostilities of the ocean environment are not likely to tire after a few performances. Furthermore, aquarium curators have often reported seeing marine mammals leaping and swimming rapidly late at night, or long after a "tiring" day of performances.

On page 12 of their document the animal protectionists recommend that the impact of removing animals from the wild be considered with permit applications. We agree! The purposes of the Marine Mammal Protection Act are to protect species and populations of marine mammals and the ecosystem of which they are a part; indeed, this is the *only* criterion that the Service ought to consider during permit evaluations. No change to the law is needed.

The animal protectionists oppose allowing depleted marine mammals to be taken for captive propagation. Their argument: "No aquarium has shown that it can successfully propagate and restore to the wild even non-depleted species." We disagree. Many aquariums routinely breed grey seals, harbor seals, California sea lions, and bottlenose dolphins. At least two facilities have breeding colonies of northern fur seals, a species recently designated as depleted. Steller's seal lion, another depleted species, also breeds readily in captivity, although few facilities have the space needed to house breeding colonies. Harbor seals and California sea lions have not been taken from the wild in years, because the number of pups born every year is sufficient to supply the needs of every aquarium and zoo in North America. Having achieved success with these species, it is reasonable to believe that depleted marine mammals can—and will—be propagated successfully in aquariums.

The argument that a successful propagation program could be realized only if thousands of animals were born and released ignores history. Biologists believe that at one time the population of northern elephant seals reached a nadir of perhaps 20 animals. Today there are thousands. Similarly, the Galapagos fur seal was once reduced to a few individuals. Southern elephant seals, depleted severely during the 19th century, have recovered. Although the northern fur seal is now considered depleted, more than one million remain, down from perhaps three million before the breeding colonies were discovered by sealers in the 18th century but up from an estimated 200,000 in the 1890s. With wildlife threatened in many parts of the world, the closing of any avenue that might assist depleted stocks is both shortsighted and anti-conservationist.

In response to pages 14 and 15, aquariums that allocate resources to the rehabilitation of beach-stranded and injured marine mammals do so without reimbursement from the federal government and at no cost to taxpayers. Without the efforts of dedicated personnel and enlightened management, all beached animals would die slow, painful deaths. The animal protectionists would impose standards so stringent that no institution could conduct an effective rehabilitation program. APHIS standards do not presently apply to beach-stranded animals, nor should they. When a beached animal is recovered, proper medical attention, not swimming space, is given priority. Under ideal conditions beached animals should be housed apart from the resident animals. If APHIS requirements were imposed for these animals it would mean allocating large, expensive pools and filtration systems for only intermittent use.

Putting rehabilitated animals on display is often dictated by available pool space; in any case, the motive for doing so should not be questioned, so long as medical care is prompt and husbandry practices humane. Rehabilitated animals are often released. However, an institution should not be criticized for wishing to retain a beached animal in its permanent collection, in which case a public display permit is required. There would not be an impact on wild stocks because the animal would surely have died without medical attention.

According to the animal protectionists pool sizes stipulated under the Animal Welfare Act are inadequate and require revision. Specifically, "The minimal standards for cetaceans are little short of scandalous." In determining minimum pool dimensions, APHIS considered suggestions from animal protectionists and rejected them as unrealistic. They remain unrealistic today. A typical facility is not a "watery prison cell," and repetitious use of the prison analogy no longer impresses informed laypersons. In fact, many marine mammals live for years and even breed in captivity. The animal protectionists would also do well to abandon reference to sound baffling. Contemporary aquarium administrators consider the importance of reducing extraneous noise as a matter of course.

Contrary to what the animal protectionists believe, the Service does *not* have the responsibility of examining the adequacy of facilities when granting a permit. That responsibility lies with APHIS. In failing to understand the meaning and intent of the Marine Mammal Protection Act, the animal protectionists have confused the duties of the two agencies once again. The purposes of the Marine Mammal Protection Act are limited to protection of species and populations and the marine ecosystem of which they are a part. Conversely, the Animal Welfare Act exists to protect captive animals and assure their humane treatment.

The animal protectionists believe that the incidence of stress-related illnesses such as ulcers may be high in captive marine mammals. We know of no documentation to support this claim and doubt its validity. Ulcers occasionally are seen during necropsy, although in our experience the incidence is at least as high—perhaps higher—in wild animals. Most of the numerous beach-stranded animals examined by our scientific staff had ulcers. If stress causes ulcers in marine mammals, these findings suggest that life in the wild is stressful too. Hans Selye, the Canadian physician who developed the first models of stress in humans during the 1940s, stated that stress is one definition of life and that "the absence of stress is death." After decades of research and millions of dollars expended, we still have only a rudimentary understanding of what causes stress in human beings living in a free society. Animal protectionists continue to believe that stress in marine mammals can be legislated out of existence. They purport to see this achieved by requiring medical status reports.

The request that veterinarians be trained in marine mammal medicine is impractical. No formal training is available. Moreover, in their zeal to reduce—and ultimately eliminate—marine mammals in captivity, animal protectionists themselves represent the greatest impediment to establishing such a program. The request for additional, more stringent standards, increased reporting, and other bureaucratic accoutrements only reduces the amount of time an attending veterinarian can devote to taking care of animals.

We could not find evidence that transporting marine mammals between facilities increases "stress-related illnesses" or illnesses of any sort. Limiting public display permits to facilities that house animals in permanent locations serves only to deprive visitors in small communities of the chance to see a live dolphin or sea lion.

If there are rumors of marine mammal "laundering," they remain rumors and nothing more. The permit process is strict and the penalties for violation are a sufficient deterrent to prevent illegal importation. An amendment is not needed.

There is no evidence that dolphins are harmed in human/dolphin swim programs. However, it is not within the jurisdiction of either the Commission or the Service to judge whether these programs are "educational." The Commission, under terms of the Marine Mammal Protection Act, has no jurisdiction at all. Its function is to advise the Service about any adverse impact resulting from removing the dolphins requested from the wild, nothing more. The Service must consider recommendations made by the Commission. If an adverse impact cannot be anticipated, the Service has no other option than to issue the permit. The role of APHIS is to decide whether such programs fall within accepted criteria of humane treatment as defined in the Animal Welfare Act. When the Service decided to hold all permit applications in abeyance until standards are set, it acted outside its authority.

We question why whale watch boats should be required to go through the permit process. Evidence that the whales being watched are harassed is of questionable scientific validity. In the absence of evidence, speculation should not prevail.

CONCLUSION

The animal protectionist document is an example of well-funded, persistent pressure by a minority of citizens with the intent of forcing the Service into acting outside its authority. The proposed rights and protections for marine mammals exceed those given in many instances to people. The unnecessary concern for the welfare of marine mammals far exceeds the level of concern demonstrated by the majority of Americans.

The title page of the animal protectionist document contains a lengthy list of organizations, lending false credence to the idea that marine mammal rights are a priority for most Americans. As part of a study on attitudes toward wildlife in America, Stephen R. Kellert conducted an extensive survey that encompassed persons of all ages in the lower 48 states and Alaska. Among his findings was a general apathy toward marine mammals. "Quite unexpectedly, the general public overwhelmingly approved killing whales for a useful product so long as the species was *not* endangered. . . ."

In another volume of the report respondents were given a list of 33 animals and asked to rate them in the order in which they were liked or disliked. Not surprisingly, the vulture, shark, cockroach, and wasp received low rankings. The whale, however, was strongly liked by only 13.3% of the respondents, or a lower rating than

the swan, owl, robin, eagle, and elephant. Even the butterfly, trout, salmon, and ladybug ranked higher. The walrus, the only other marine mammal listed, ranked as well-liked by only 11.9 percent of those surveyed.

The Marine Mammal Protection Act is an unusual piece of legislation. In the United States, only migratory birds are similarly protected. Kellert's survey indicates that the exalted status afforded marine mammals by the animal protectionists represents a special interest point of view, not the view of Americans in general. The Service currently operates under severe budget and personnel restrictions. By demanding that it devote considerable time to the relatively few marine mammals maintained in captivity, the animal protectionists preclude other, more necessary work from being accomplished. This is most unfortunate. Protection of marine mammals in the wild is the stated purpose of the Act, and the attention of the Commission and the Service should be focused accordingly.

This is not to suggest, however, that they are not an important part of our natural environment. They are. However, the animal protectionist heave elevated them.

STATEMENT OF DR. STEVEN SWARTZ AND SUZANNE IUDICELLO, CENTER FOR ENVIRONMENTAL EDUCATION ON BEHALF OF THE CONSERVATION COMMUNITY MMPA REAUTHORIZATION COALITION

The Marine Mammal Protection Act of 1972 (16 U.S.C. 1361–1407) is the most comprehensive marine mammal conservation and management legislation in the world. For more than 15 years it has protected whales, porpoises, seals, sea lions, walruses, sea otters, polar bears, and manatees, through its major provision: a moratorium on the taking of all marine mammals by persons subject to U.S. jurisdiction.

This prohibition on taking marine mammals (which includes hunting, capturing, killing or harassment) is lifted, however, under several major exemptions provided in the Act. The Secretary of Commerce or Interior may determine, on the basis of scientific evidence and advice, whether it is appropriate to waive the prohibitions on taking and importation of marine mammals for a number of purposes. These are for research and display, for subsistence uses by coastal Alaskan Natives, for incidental takes during commercial fishing operations, and for incidental takes of small numbers of animals during noncommercial fishing activities, such as oil and gas exploration.

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In 1984, the National Marine Fisheries Service (NMFS) issued eight, five-year general permits to domestic commercial fisheries on the West Coast allowing the take of more than 6,400 marine mammals.[1] Since then, NMFS has indicated in published documents that at least one of those species, the northern fur seal, is depleted. Another, the Steller's sea lion, is declining, and NMFS is proposing that it be listed as depleted. Incidental and intentional takes in commercial fisheries are cited by agency scientists as a major cause of the decline. Further, a species which the Service knew would be taken, the harbor porpoise, was not included in the permits. Numerous attempts by the conservation community to elicit a statement from the agency that this species was either above OSP and could be included in the permit, or was below OSP and could not be taken, have been unsuccessful. The agency's response to inquiries was that the status of the harbor porpoise stock was unknown.

The lack of scientific information on the status of marine mammal populations and stocks which have interactions with commercial fisheries is disturbing to the conservation community, which is concerned about the effect these interactions are having on the status of these species, particularly the two which are known to be declining. The lack of information also is problematic to the fishing industry, which now must reapply for general permits which expire at the end of this year. The uncertainty over whether the agency will even be able to issue permits for incidental takings of species about which it knows very little, let alone whether the takings will pose a disadvantage to the stocks, led to the development of a joint proposal from the conservation community and the fishing industry for amendments to the Act to address this lack of information.

A detailed description of the proposal (submitted to the Committee under separate cover) will be presented by Mr. Bricklemyer and Mr. Mitchell. Among its elements, though, is a mechanism for making determinations about the status of marine mammal populations. These determinations have, to the present, been undertaken within the agency without any timelines. For at least one species, the northern fur seal, the process has dragged on for more than two years. It is our belief that an amendment to the Act that provides a formal process for such determinations, sets deadlines, and involves scientists from both within and without the agency, will contribute to a more effective MMPA.

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[1] 2,120 Steller's sea lions, 45 northern fur seals, 1,835 California sea lions, 2,155 harbor seals, 60 elephant seals, 200 cetaceans.

2. Permits are issued to an entire class of fishermen, without accounting for the diversity of the fisheries within the class

Presently, permits for the incidental taking of marine mammals in domestic commercial fisheries are issued in two ways: through a waiver of the moratorium, promulgation of regulations, and issuance of a general permit under Sections 1373 and 1374, or through the granting of small take exemption as set out in Section 1371(a)(4).

As implemented by NMFS, this system has resulted in the granting of general permits to the North Pacific Fishing Vessel Owners Association, representing all fishing operations off the coast of Alaska, and to the Pacific Coast Federation of Fishing Associations, representing all fishing operations off California, Oregon and Washington. Under current regulations, the types of general permits issued to these two entities are for four categories: towed or dragged gear, purse seines, stationary gear, and a catch-all category which includes troll, longline and gillnets. Two small take exemptions also have been granted, one for owners and operators of U.S. menhaden vessels in the Atlantic and Gulf of Mexico, and one for groundfish gillnetters in New England. The following comments do not address the small take exemptions.

The first drawback to this system is that each of the umbrella associations, while holding the general permit, not only have no authority to elicit compliance from their various member associations, they do not even represent all the fishermen who operate in the extensive geographic areas covered by the permit. Since no attempt ever has been made to enforce the conditions of the permits, it is unknown how the agency might do so—or even if it could. Would the association be liable for a permit violation by one of its "members?" Upon whom which penalties be assessed? If the quota for a species were exceeded in a gear category, would the entire permit become invalid for all gear users of that type? Under the present system, these remain unanswered questions.

The second problem with this system is that it fails to recognize the fact that fishing is conducted on an area-by-area, fishery-by-fishery basis. A lump allocation of, for example, 1000 Steller's sea lions among all trawl fisheries that operate off the coast of Alaska in an entire year adds nothing to our ability to monitor interactions and mitigate harm to marine mammals where necessary. In that category, in Alaska alone, there are more than 200 vessels, ranging from 70-foot coastal draggers to huge, offshore factory trawlers operating in an area that covers thousands of square miles of ocean. The present permit system gives the agency in charge of protecting marine mammals no handle at all on what is going on among these diverse trawl fisheries—and they are the most homogeneous group among the permitted gear types.

The worst example of the inadequacy of the structure of the present gear categories is in Category 5, which combines in one permit trollers, longliners, and gillnetters. These three gear types are so unlike in their configuration and operation that it is impossible to make any sense of what is going on in their interactions with marine mammals. Under the current structure, the agency has, in effect, allocated an aggregated take of more than 2000 seals, sea lions and small cetaceans to fisheries ranging from salmon trollers in Southeast Alaska, to black cod longliners in the Gulf of Alaska to herring gillnetters in Bristol Bay. And it has no way of telling whether these fisheries actually do take mammals, and if so, where, how, or how many.

NMFS is at present undertaking an examination of the general permit process and the effects of incidental takes in commercial fisheries through a draft environmental impact statement to be developed in conjunction with the reissuance of the general permits. During the scoping process on that DEIS we have urged the agency to issue permits on a fishery-specific basis. Without connecting the permitted incidental take of marine mammals to the specific fisheries in which such takings occur, the agency has no means by which to mitigate such takings or to regulate fisheries where the takings reach a level that poses harm to the species or population stocks.

3. Participation in the permit system is abysmal

The present general permits allow more than 20,000 fishermen from San Diego to Kotzebue to kill more than 6,000 marine mammals during their fishing operations without any exposure to the penalties of the MMPA. All they are required to do for this exemption from the moratorium is (1) get a certificate of inclusion to the general permits (at no charge), and (2) report any takes of marine mammals.

In 1987, 70% of the trawl vessels covered under the general permits applied for certificates. Despite the fact that they are required by law to do so, only 9% of those vessel operators holding certificates submitted any reports on marine mammal interactions. And this gear category has the highest level of participation in the U.S. West Coast fleet.

Among the other gear categories, participation ranges from a low of 2% certificate holders among fishermen using stationary gear, to 48% of purse seiners holding certificates. Not only do these fishermen not acquire certificates, even those who bother to get the certificates do not report interactions. Only 2% of the certificate holders in the stationary gear category submitted reports; 13% of purse seiners holding certificates reported.

Of the more than 13,000 gillnetters, longliners and trollers licensed to fish in Alaska, Washington, Oregon and California, only 3500 got certificates in 1987, and of those only 568 submitted marine mammal take reports—about 16%.

Representatives of the fishing industry have indicated their willingness to undertake an information and education campaign among their members to improve the level of participation in the reporting system. The conservation community supports such a campaign, and has pledged to participate in its development. While education will, we hope, encourage more fishermen to participate in reporting and contributing to our information base about marine mammal-fishery interactions, it will not be enough.

If reports submitted by fishermen are to be of any use in protecting marine mammals from harmful levels of incidental mortality, they must be accessible, and keyed to a fishery-by-fishery data base. Such a data base is another element of the joint proposal, and essential to filling the information gap which presently exists.

4. *Without monitoring, the level of incidental mortality of marine mammals in fisheries is unknown*

In this system where the only indicator of the level of mortality of marine mammals is through a small number of reports submitted by fishermen, it is clear we have a serious information gap. Even if reporting is improved ten-fold, there still must be a better means of monitoring and verifying the level of take of mammals in fisheries. Without such verification, the agency responsible for the management of these species is doing little more than throwing a dart at a board when it sets allowable take levels in permits. Furthermore, once the limits are set in the permits, the agency has no way of knowing when the limits are reached.

U.S. fisheries policy is presently in a mode described as the "Americanization" of operations in our fishery conservation zone. Where five years ago foreign vessels fishing in U.S. waters carried observers who tallied not only catch, but also marine mammal takes, this is no longer the case. Increased participation by U.S. vessels has eliminated direct observations of incidental takes in all but a few fisheries, and information on marine mammal takes is available from these programs, but they represent only a small portion of coastwide fishing activity.

The conservation community recognizes that onboard vessel observer coverage throughout the entire, diverse domestic fleet is not feasible. In some particular fisheries onboard observers will be possible. We have worked with representatives from different types of fisheries which are known to interact with marine mammals in an attempt to identify a number of alternative methods of verifying levels of incidental take. These alternatives are laid out in the joint proposal and will be described in more detail by Mr. Bricklemyer and Mr. Mitchell. We look forward to continuing to work with the industry, the NMFS and State resource management agencies to finetune these alternatives, and believe they will contribute further to developing an information base from which decisions about marine mammals can be made.

5. *The current system contains no mechanism to trigger mitigating efforts if takes reach a level that poses harm to marine mammals subject to interactions with fisheries*

The incidental taking of marine mammals in fisheries often reaches levels that, for some populations such as Steller's sea lions, contributes significantly to the decline of the species or population stock (Loughlin et al., 1983, Loughlin and Nelson, 1986, Loughlin et al., 1987). With the rapid development of new fisheries and the expansion of existing fisheries in U.S. waters, incidental taking is likely to increase unless more effective means for reducing interactions can be developed.

Officials from the NMFS have acknowledged that as the current general permit system operates, it is virtually impossible to enforce and serves more as an information gathering mechanism than a regulatory one (O'Hara et al., 1986). Even if reports were received sufficient to indicate a harmful level of incidental mortality for a particular species, it would be impossible for the agency to step in with regulatory measures designed to mitigate that take. Because neither permits nor reporting are segregated by fishery, the agency would have no options for mitigation short of shutting down the entire gear category covered by the permit. This lends no help to a situation where the harmful effects of incidental take may be limited to a specific geographic area, a certain species, a specific time of year, or a particular fishery practice.

Although the Act enables the Secretary to modify existing permits, no procedures or processes such as recovery plans or mitigation measures have been developed by the agency. In conjunction with the recommended improvements to the data gathering system of the MMPA, the joint proposal provides for the triggering of protective measures should information indicate that they are necessary to protect a marine mammal species or population stock. Such measures will be necessary if the permit system is to be anything more than an annual tally of the mortality of marine mammals in fishery interactions.

CONCLUSION

In conclusion, we urge the Committee to consider amendments to the MMPA that will continue to provide the protections to marine mammals that were intended by the Act, yet allow domestic commercial fisheries to continue to operate. The amendments outlined in the joint proposal from the conservation community and the fishing industry would accomplish this by: (1) improving our scientific information base about marine mammals, (2) establishing procedures and deadlines for determinations on the status of marine mammal populations, (3) devising a permit system that reflects the way fisheries operate, (4) implementing measures to increase the level of reporting by fishermen, and (5) providing the agency with the tools to intervene where necessary to protect marine mammal species and population stocks that are adversely affected by fishery interactions.

Statement of the Committee for Humane Legislation

Mr. Chairman and members of the Subcommittee, on behalf of Friends of Animals 102,000 members I would like to submit the following statement regarding the Marine Mammal Protection Act (MMPA).

SUBSISTENCE HARVESTS

The exemption for subsistence harvests of marine mammals by Native Alaskans under the Marine Mammal Protection Act is one that, in some instances, provides a major loophole to the protection of marine mammals. In the absence of an adequate definition of subsistence many abuses are allowed to occur. One species which has suffered greatly through the years and continues to because of the lack of a proper definition of subsistence is the northern fur seal.

The northern fur seal is a "depleted" species. There is a documented population crash which has witnessed a decline from 1.3 million just eight years ago to 800,000 today. The fur seal population continues to decline at the rate of approximately 62,500 seals per year. Additional legal protection needs to be provided by classifying the species as "threatened" under the Endangered Species Act, and by proposing an Appendix II listing under the Convention on International Trade in Endangered Species. Despite the grave situation of the fur seal Alaskan Natives, their Congressional representatives and the Department of Commerce, the government agency charged with their stewardship, are working for an amendment to the MMPA to allow the commercial sale of fur seal pelts.

OPPOSITION TO THE COMMERCIAL SALE OF FUR SEAL PELTS

A resolution passed by the Alaskan Federation of Natives calls for an amendment to the MMPA to allow the commercial sale of fur seal pelts taken during the Aleut "subsistence harvest" on the Pribilof Islands. Friends of Animals is adamantly opposed to any such amendment for the following reasons:

1. We agree with the NMFS Alaska Regional Office which stated: ". . . such a change to the act [to allow the commercial sale of pelts taken during the "subsistence harvest"] would be completely unenforceable and would soon lead to wholesale killing of marine mammals for purely commercial reasons."

2. The commercial trade in fur seal pelts was the greatest factor in the collapse of the fur seal population and current depleted status.

3. The commercial sale of fur seal pelts would not be for traditional handicraft purposes as required under the Act. In fact there are no native handicrafts produced by the Aleut natives on either St. George or St. Paul Islands.

4. Allowing the commercial sale of the pelts from the so-called "subsistence harvest" would be in direct conflict with the intent of the MMPA to protect marine mammals and would most likely lead to other native groups seeking similar amendments which would undermine the integrity of the MMPA and do untold harm to the marine mammal species involved.

5. If a commercial sale were to be allowed there would be inflated estimates for the numbers of fur seals needed for "subsistence" purpose.

6. If the Aleuts were to depend on the sale of fur seals pelts for their financial livelihood they would not be able to survive. The EEC ban on the sale of harp seal pelts has caused a collapse in the world market for seal pelts in general. There would be no market for the pelts.

7. What the Aleuts need is a full time viable industry, which simply cannot be fur seals.

8. The fur seal population continues to decline. The causes include entanglement in lost & discarded fishing gear which is a cause that will continue to kill fur seals for many, many years to come. The fur seal population is too fragile to ever be exploited again.

DEFINITION OF SUBSISTENCE

The definition of subsistence under the MMPA needs to be defined to prohibit corporations from conducting the killing. The definition should allow only those natives with no other commercial, agricultural or other natural source of foods, clothing, shelter, heating or transportation available to them and whose general life practices show strict adherence to native, primitive ways of life to kill marine mammals for "subsistence" purposes. In addition, the "subsistence harvests" need to be more adequately regulated not simply once a species is listed as depleted or when the taking is done in a "wasteful" manner.

1. Corporations should not be allowed to conduct "subsistence harvests." The Aleuts' "subsistence harvest" on the Island of St. Paul is conducted by the for-profit Tanadgusix (TDX) Corporation. TDX is the company that conducted the commercial slaughter of fur seals for the United States before the fur seal treaty was not ratified by Congress. TDX was incorporated for one purpose and one purpose only—to kill fur seals for commercial gain. There is supposedly no commercial fur seal kill allowed under the MMPA nor should there be.

Yet, during the 1987 seal kill TDX budgeted and spent $50,000 to pay for "professional" hunters to kill the seals. The Aleuts claim to be worried about going hungry for the winter as the justification for requesting extensions to their current fur seal "subsistence harvest." One must seriously question the rationale behind spending $50,000, $25,000 of which was spent to process and stockpile fur seal pelts which cannot legally be sold or traded under the MMPA. The $50,000 could be spent on food from the centrally located grocery store on the island.

3,400 fur seal pelts from the 1985 "subsistence harvest" were confiscated by federal agents at the Fouke Fur Company. The pelts were traced to TDX. This constitutes a gross disregard of the MMPA. Furthermore, any argument by TDX that it didn't understand the law, or that it had no intent to violate the law, seems dubious given St. Paul's and St. George's longstanding interest and sophisticated participation in the international and domestic policies concerning the North Pacific Fur Seal.

2. The killing of marine mammals, especially those of depleted species, should not be allowed for "subsistence" purposes when other sources, either commercial or natural, of food, clothing, shelter, heating, or transportation are available to the taker.

Friends of Animals must take exception with the use of the term "subsistence" in connection with the annual slaughter of fur seals by the Aleuts on the islands of St. Paul and St. George in the Pribilof Islands. We are not convinced that Aleut survival or cultural integrity actually depends on this slaughter.

The Bering Sea is on the doorstep of St. Paul, containing 80 percent of the world's bottom fish—free of charge. In addition to the ample supply of fish there is a centrally located, generously stocked grocery store which according to the manager carries "everything Safeway has." 2,500 pounds of red meats, poultry and fish are sold to the Aleuts weekly.

The desire to kill the fur seal has nothing to do with "subsistence needs" in this instance and is not appropriate or justified since the seals are not a food staple or anywhere near a "means of survival" and are in fact shunned for clothing.

The Aleuts in recent years have enjoyed the very substantial federal largess of nearly one million tax dollars for each of the approximately 150 residential households on the Pribilof Islands. This includes the federal monies associated with the Alaska Native Claims Settlement Act, the Indian Claims Commission Settlement, the Fur Seal Act of 1983, the Commerce Islands Program, and various harbor appropriations, school construction, retirement fund benefits, and other allocations. In addition, $3.9 million has been appropriated for the 489 residents of St. Paul for 1989 from a trust fund created for the Aleuts. With subsidies of this nature, the concept of "subsistence" should be moot.

3. The MMPA needs to be amended to allow for the regulation of the "subsistence harvest" before a species is listed as depleted and regardless of whether the take is done in a wasteful manner. Of the species regulated by the Fish and Wildlife Service both the walrus and polar bear populations are facing serious decline. Currently the "subsistence harvest" of both species is unregulated.

NOAA INCOMPETENCE

The National Marine Fisheries Service's (NMFS, an agency of NOAA) management of fur seals reeks of political cronyism and many decisions seem to be based on politics rather than science. Outlined below are a few of the more egregious of NMFS's actions.

1. Apparent encouragement of the commercial sale of fur seal pelts by the Aleut's. James Douglas, Jr., the Deputy Assistant Administrator for Fisheries of NOAA stated in his testimony before the Senate Committee on Commerce, Science and Transportation on April 13, 1988 that, "Changes to the Native subsistence provisions of the Act [to allow the commercial sale of fur seal pelts] would be acceptable to NOAA if the take remained truly for subsistence and if it could be adequately enforced." This apparent endorsement is so inappropriate that Robert McVey of the Alaska Region office of NMFS sent a memo to Mr. Douglas expressing his concern that the "Alaska Region was not consulted during preparation of NMFS testimony on reauthorization of the [MMPA]." Mr. McVey goes on to state in the memo that, "We feel strongly, that in practical terms it will be impossible for us to determine whether kills occurring in remote areas are being made for subsistence purposes or merely to provide skins for sale. Thus, such a change to the act would be completely unenforceable and would soon lead to wholesale killing of marine mammals for purely commercial reasons."

NOAA's office of General Counsel went so far as to offer the return of illegally traded pelts from the 1985 "subsistence harvest" if the Aleut's obtain an amendment to the MMPA by January 1989 to allow for the commercial sale of fur seal pelts. In a settlement agreement in which the Tanadgusix (TDX) Company was fined $5,000 NOAA offered to transfer the 3,4000 pelts to TDX if the MMPA was amended by January 1, 1989.

NOAA's endorsement of the sale of the fur seal pelts is completely at odds with their mandate of stewardship over the fur seals and well beyond their authority. It is amazing that they never bothered to discuss this matter with the Alaska Regional office.

2. Hold up of depletion designation for northern fur seals.

Friends of Animals is of the opinion that the National Marine Fisheries Service presented a credible, reasonable and scientifically justifiable case in proposing the north pacific fur seal as "depleted" within the context of the MMPA. In March of 1985 when NMFS issued the results of its Status Review of the North Pacific Fur Seal they concluded that the northern fur seal was "depleted" within the context of the MMPA. In July of 1985 NMFS again acknowledged the depleted status of the northern fur seal when it issued an Emergency Interim Rule to govern "subsistence" killing of the seals by the Aleuts.

Despite the overwhelming evidence that the fur seals were depleted NMFS reopened the comment period on the depletion ruling. This decision was based on information received from the Northwest and Alaska Fisheries Center, NMFS, Seattle office. This new information included a study conducted by Dr. E.L. Venrick which NMFS inappropriately used as "evidence" of a change in carrying capacity of the Bering Sea.

The Venrick study could in no way prove anything about the Bering Sea because it studied conditions thousands of miles away in the Central Pacific. In Dr. Venrick's own words, "[M]y coauthors and I are in agreement that extrapolation of our results into the Bering Sea, as NMFS has done, is completely unjustified." It should be apparent to anyone with even a modicum of scientific background that the putative scientific justification for reopening the comment period on the northern fur seal depletion designation based on the Venrick study was without merit. This, then suggests that factors other than a scientific determination were indeed behind the delaying stratagem.

Friends of Animals is of the opinion that the reasons were more political than scientific and would therefore be beyond the legal limits of the MMPA under which the depletion designation is nondiscretionary. Based on NMFS data it was adequately shown that the fur seals are below OSP and therefore legally depleted under the MMPA.

The actions of NOAA and NMFS should not be allowed to go unnoticed by Congress. Such flagrant disregard for the MMPA and the protection of marine mammals under the agencies' jurisdiction can simply not be tolerated.

CONCLUSION

1. The MMPA should not be amended to allow for the commercial sale of fur seal pelts.
2. The MMPA needs to be amended to include a realistic definition of "subsistence harvest."
3. The MMPA needs to be amended to require the regulation of "subsistence harvests" of non-depleted species.
4. NOAA and NMFS have been derelict in their stewardship of fur seals. This should not go unnoticed by Congress.

STATEMENT OF DONNA HART, INTERNATIONAL WILDLIFE COALITION

Mr. Chairman and members of the subcommittee, we appreciate the opportunity to address an issue which has been of major concern to wildlife conservation organizations for many years—the rising and wasteful take of walrus by native peoples in the State of Alaska. The walrus, because of its large size, low reproductive rate, slowness in moving away from motorized boats, its gregarious nature, and the high monetary value placed on its ivory, is one of the most vulnerable marine mammal species to overexploitation by humans.

The current status of walrus populations is not at all well known. Trends point to escalated kills and declining population numbers. In the British journal, *New Scientist,* an Alaskan biologist was quoted in 1985 as saying the population in Alaska was "on the skids" (MacKenzie 1985).

The number of kills by Alaskan natives climbed from about 1,500 walruses per year during the early 1970's to about 3,500 per year in the early 1980's; a parallel rise is estimated for Pacific walrus taken in Soviet waters (Sease and Fay 1987). Sease and Fay (1987) estimated that the total kill of walruses, including Soviet and Alaskan catches, together with losses of sunken animals, has been at least 10,000 per year since 1981.

How are these rising catches affecting the population of the Pacific walrus? The following excerpts are from Fay *et al.* (in press):

"Rates of recruitment into the adult population in recent years (1 to 5%/yr) probably have hardly compensated for natural mortality, much less for the additional harvest mortality. Recruitment into the adult population at age 6 will reach its lowest point in 1986, when the very small 1980 cohort begins to reach breeding age. We assume that the low recruitment eventually would have controlled the growth of the population and would have brought it into equilibrium with the environment, but at the same time the catches have been rising, and they appear to have exacerbated the natural balancing process that was underway. For that reason, we think that the population is now in a decline, and we predict that depletion will take place very soon if the catches on both sides of the Bering Sea are not greatly reduced. Our models indicate that, even if the catches were halved right now, the population may continue to decline for another decade before any recovery can take place.

"The best estimates of the overall kill since 1980, including both the catches and the losses, suggest that the removal rate by exploitation is now at least 5 to 9% of the adult population per year, added to the loss from natural mortality, which we presume is at least 3 to 4% per year . . . At that rate, if the kill continues to be 8,000 to 10,000 or more per year, the population could be halved again by 1990 . . . Unfortunately, with the present, crude monitoring methods, neither the USA nor the USSR may know that with certainty until long after it happens!"

High loss rates have been a fundamental problem in all walrus hunting since the introduction of modern weapons and vehicles and contributes significantly to concern about population declines. The estimated number of walruses which sink after being shot and fatally wounded and which are never recovered nor recorded in the statistics is in the range of 40%-50% or more in Alaska according to most authorities (Brooks 1978).

Traditionally, walruses were indispensible in the lives of all Arctic aboriginal peoples. Some of the subsistence uses of walruses in the past included meat and viscera (an important source of vitamins) for human consumption; intestines for waterproof clothing and containers; bait for fox and bear hunting; oil for lamps and heating; hides for leather harnessing, fishing lines, boat and roof coverings; ivory for harpoons, toggles, sled shoes, paddle tips, needle cases, goggles, artistic carvings, tools and toys.

In Alaska, with the advent of the snowmobile, the subsistence needs of the Eskimo have undergone a dramatic change—dog teams are no longer a necessity of life in the Arctic environment. Instead, cash is needed to buy fuel for snowmobiles, and the increasing tourist market for ivory artifacts has become a native gold mine. Walruses are often killed for their tusks alone—a practice known as "head hunting."

Because ivory has become the prime incentive for native people in Alaska to kill walruses, as little as 1%-3% of the retrieved carcasses may be utilized (Anon. 1979, 1980), even though the Marine Mammal Protection Act (MMPA) clearly states that walruses must be taken only in a non-wasteful manner.

The slaughter of walruses for their ivory tusks (which enter legal and illegal international trade in large quantities) is the greatest single cause of mortality for the species, and there appears to be a substantial increase in harvest of walruses in recent years which can be directly linked to the rise in ivory prices worldwide. The U.S. Fish and Wildlife Service (1980) reported that the walrus ivory trade had developed into "a multi-million dollar industry."

Walrus ivory is almost as valuable as elephant ivory. There is a large international market for carved ivory and mounted walrus tusks, and together with the high price of raw ivory, has created an incentive for native hunters to kill these marine mammals simply for their tusks. An NBC news program in 1986 documented a continuing illegal black market trade in walrus ivory and the wasteful harvesting practices of Alaskan Eskimos.

The incentive is considerable. Raw walrus ivory sells for $44-$55/kg wholesale, and up to $132/kg retail (Reeves 1978, TRAFFIC 1981), or, if mounted with the skull, a good pair of tusks may fetch as much as $2,500 (TRAFFIC 1981).

There is a justifiable exemption in the MMPA which allows the sale of "traditional carvings" made from walrus ivory obtained as a by-product of subsistence hunting. Clearly, head hunting for ivory has nothing to do with true subsistence, and amendments to the MMPA should be formulated to block this significant loophole which is allowing commercial, rather than subsistence, exploitation to occur.

In addition, we recommend that language be added to clarify and detal regulatory powers of the Fish and Wildlife Service to oversee native take of walrus (and other non-depleted marine mammals).

We also urge that no amendments be added to the MMPA that allow further commercial use of the by-products of marine mammals, such as the sale of walrus meat for dog food.

Thank you for this opportunity to express our opinion.

STATEMENT OF THE NORTHWEST INDIAN FISHERIES COMMISSION

Chairman Hollings and members of the committee, the following comments represent the interests and concerns of the treaty Indian tribes of the *U.S.* vs. *Washington* Case Area. The Northwest Indian Fisheries Commission (NWIFC) has been a very active participant in the recent negotiations between the fishing industry and the conservation community. We are pleased that the fishing industry and the conservation community were able to set aside their differences and jointly produce recommendations for this reauthorization. The recommendations include a significant opportunity for all parties to participate in joint marine mammal management efforts with the National Marine Fisheries Service (NMFS). We believe these recommendations will be the beginning of active management of those marine mammals which have an interaction with fishing activities and that this will lead to healthy populations of marine mammals and manageable interactions with the nation's fishing activities. We are very supportive of the recommendations produced by this effort. We believe that the opportunity to participate in the implementation of the Marine Mammal Protection Act (MMPA) will be beneficial in managing the natural resources in the Pacific Northwest.

SPECIFIC COMMENTS

1. It is extremely important to the long-term success of the MMPA that all the recommendations be adopted as a package and not taken apart for political reasons. The key components of the agreement have been carefully balanced so that the truly depleted marine mammals populations can be studied and the reasons for their decline documented and possibly corrected, while not having an overly adverse impact on the fisheries which may on occasion interact with those species.

2. To the tribes of the Northwest, it is of the utmost importance that the following provision, contained in footnote 4 remain: "Provided, however, the provisions as contained in existing regulations which allow, (after all non-lethal deterrent methods have been pursued), the intentional killing of a marine mammal upon the showing that it was causing substantial and immediate damage to catch or gear or about to cause personal injury, shall only apply in cases where species are increasing in population size". This provision is required because near shore gillnet fishermen are suffering increasing economic loss and hardship as the populations of California Sea Lions and Harbor Seals continue to skyrocket, causing increased incidents of gear damage and significant loss of catch from their nets. We also believe that this provision should be expanded to include the specific instance of the lethal taking of Steller's sea lions in Alaska salmon gill net fisheries, although this provision could not be agreed to by the conservation community. This provision would allow to continue the protection of catch and gear that has been legally ongoing in those fisheries.

3. The NWIFC is strongly supportive of industry efforts to educate fishermen about the MMPA. Education efforts proposed involve: The new Letters of Inclusion and Reporting required, the need for healthy stable populations of marine mammals (if they are to be allowed to continue to fish) and the direct impact of shooting marine mammals on those populations and their ability to continue to fish.

4. The negotiated agreement calls for a three year reauthorization term. While that is acceptable, we believe for the following reasons, that the best option for the MMPA and the resource would be a reauthorization after June of 1992.

(a) The new process will not start until January, 1989.

(b) The first year's data will not be processed until June of 1990.

(c) If reauthorization hearings occur in April or May of 1991, little additional data would be available to make decisions about any progress that was being made under the new system. Ideally, from a management perspective, we would want to be able to analyze data from all three years of the reauthorization prior to having to recommend new changes to the Act.

5. We recommend that the reporting procudure outlined in the agreement be used to allow industry to carry out the data gathering and summarization of data collected from the Letter of Exemption process. The National Marine Fisheries Service (NMFS) has, in the past, been solely responsible for the implementation of the MMPA. This process did not work in the past and likely would not work now. The severe budget cuts and lack of appropriate re-prioritization within the NMFS over the past few years left them unable to accomplish data collection and research necessary to manage marine mammals.

There has been only minimal progress in obtaining fishery/marine mammal interaction data.

There has been no progress in educating fishermen about the existing Certificate of Inclusion (CI) process, and why it's important for them to participate.

There has been no progress in developing or implementing interactive, accessible data base systems to record and analyze the little bit of data that is returned from the CI's.

There has been very little progress in developing research programs directed at the depleted species of concern which would lead to management and recovery plans.

SUMMARY

1. The NWIFC supports the recommendations of the joint proposal and further believes that these programs are an absolute minimum and must be implemented if marine mammal populations are going to recover and be manageable in the future.

2. There is no known significant impact to any truly depleted or endangered, or even declining specie, from any fishery in Washington State.

3. Treaty tribes need the ability to lethally take marine mammals which are damaging their gear or catch, after all reasonable means of deterrence have been used.

4. The NWIFC would like to request an external audit of the priorities by which the NMFS allocates its past and future funding specifically earmarked for the im-

plementation of the MMPA. We believe this process should involve representatives of the environmental community as well as the fishing industry.

STATEMENT OF JANIE LEASK, PRESIDENT OF THE ALASKA FEDERATION OF NATIVES

Mr. Chairman, members of the subcommittee, my name is Janie Leask. I am the president of the Alaska Federation of Natives (AFN). On behalf of AFN and its member organizations I would like to express our appreciation for the opportunity to testify this afternoon in support of the reauthorization of the Marine Mammal Protection Act (MMPA).

As you know, the continued use of marine mammals for subsistence purposes and marine mammal by-products in the manufacture of traditional Native handicrafts is of critical importance to Alaska Natives living in villages along the Alaska coastline, from Kaktovik on the windswept coast of the Beaufort Sea a few miles west of the Canadian border to Hydaburg on the southern tip of the Alexander Archipelago in southeast Alaska. A recent report on Native hunting prepared at the request of the Marine Mammal Commission indicates that 59,000 Alaska Natives living in 129 coastal communities depend upon the harvest of marine mammals for their sustenance or their livelihood. *See* Matthew Iya, *Marine Mammal Issues of Concern to Alaska Natives and Approaches That Might Be Taken to Resolve Problems* (Marine Mammal Commission 1988).

For that reason, in 1972 when it enacted the MMPA and, in so doing, imposed a national moratorium on the directed take of marine mammals, Congress was careful to exempt Native hunting from the moratorium. Pursuant to section 101(b), Indians, Eskimos and Aleuts living on the coast of the North Pacific and Arctic Oceans may take marine mammals "for subsistence purposes"[1] or "for purposes of creating and selling authentic native articles of handicrafts or clothing." In addition, section 101(b) requires Native hunting to be conducted in a nonwasteful manner.[2]

The conference committee that drafted section 101(b) drew the text of the Native hunting exemption from the text of the Native hunting exemption in the MMPA bill the Senate Committee on commerce reported. *See* House Report No. 1488, 92d Cong., 2d Sess. at 23 (1972) (With respect to the txet of section 101(b) "the conferees essentially adopted the provisions of the Senate amendment."). Prior to reporting its bill, the Commerce Committee held hearings at Nome and Bethel, Alaska, at which 95 witnesses, most of whom were Inupiat and Yup'ik Eskimo marine mammal hunters from surrounding villages, testified. *See Ocean Mammal Protection: Hearings before the Subcomm. on Oceans and Atmosphere of the Senate Committee on Commerce,* 92d Cong., 2d Sess., Part 2 (1972) (hereinafter "Senate Hearings"). The committee then returned to Washington, D.C., and drafted a bill which contained what is now section 101(b). When the bill was reported, the Committee summarized the information about Native hunting it obtained during the field hearings as follows:

"The findings were that most villages of northern Alaska depend upon marine mammals not only for food, clothing and implements, but utilized products from seals, whates, and walruses as the basis for their small cash economy. An Eskimo hunter may bring in a seal, which is cut up for food, pelt and seal oil. Any excess beyond family needs can be sold to neighbors or turned in at a village store for credit on gasoline, fuel oil or ammunition. Carvings and native handmade crafts, and clothing, created from marine mammals, are a continuing manifestation of ancestoral cultural patterns, and must not be extinguished by act of Congress." Senate Report No. 863, 92d Cong., 2d Sess. at 8 (1972).

Significantly, the Commerce Committee approach to the Native hunting issue was strongly supported by Alaska environmental organizations. *See* Senate hearings Part II at 906–909 (statement of Ernest Mueller, president, Alaska Conservation Society), 909–915 (statement of Art Davidson, representative, Friends of the Earth). *See*

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[1] As used in section 101(b), the National Marine Fisheries Service (NMFS) has defined the term "subsistence" as: "the use of marine mammals taken by Alaskan Natives for food, clothing, shelter, heating, transportation, and other uses necessary to maintain the life of the taker or those who depend upon the taker to provide them with such subsistence." 50 C.F.R. 216.3.

[2] NMFS has defined the term "wasteful manner" as: "[a] taking or method of taking which is likely to result in the killing of marine mammals beyond those needed for subsistence of for the making of authentic native articles of handicrafts and clothing or which results in the waste of a substantial portion of the marine mammal and includes, without limitation, the employment of a method of taking which is not likely to assure the capture or killing of a marine mammal, or which is not immediately followed by a reasonable effort to retrieve the marine mammal." 50 C.F.R. 216.3.

also Senate Hearings Part I at 713 (statement of Cynthia Wentworth, Alaska Chapter, Sierra Club).

Since 1972 the section 101(b) Native hunting exemption has proven itself a workable approach that hats increased marine mammal populations while affording Native people fair treatment. For the past sixteen years all directed marine mammal hunting (other than Native hunting) has been prohibited and Native hunting has been unregulated. Under this system, marine mammal populations which, other than through the Native hunt, have not been exploited have remained healthy, and several important populations have substantially increased.

In 1972, for example, the U.S. Fish and Wildlife Service (FWS) estimated that the Pacific walrus population numbered between 90,000 and 100,000 animals. *See* Senate Hearings Part I at 198 (statement of E.U. Curtis Bohlen, Deputy Asst. Secretary of the Interior for Fish and Wildlife and Parks). According to a population assessment recently prepared by the Marine Mammal Commission, the most recent survey data indicate that the population presently numbers approximately 250,000 animals. *See* Marine Mammal Commission, *Selected Marine Mammals of Alaska: Species Accounts with Research and Management Recommendations* (Jack W. Lentfer ed. 1988) (hereinafter "Species Accounts").

The situation with polar bear is similar. Although reliable population estimates are not available,[3] FWS has indicated that the polar bear population is "healthy" and "probably stable," and that the population numbers approximately 5,000 animals. The sixteen year moratorium the MMPA has imposed on sport hunting has undoubtedly been a positive factor that has contributed to the health of the population and to the protection of subsistence uses of the population by the Inupiat Eskimo people of the northern arctic. In 1972 the Department of the Interior testified that:

"In 1971, it is estimated that 206 polar bears were legally taken on the pack ice adjacent to Alaska. Over 90 percent of these animals were taken on the high seas. Most of these bears were harvested with the aid of aircraft which are employed to both locate and herd then animals to the hunter. This manner of hunting has been practiced for more than two decades and has accounted for the killing of approximately 4,000 polar bears during this period. Aircraft hunting has resulted in the drastic decline in the number of polar bears taken by Eskimos and has caused much alarm among conservationists." Senate Hearings Part I at 197.

According to FWS, as the result of the moratorium imposed by the MMPA, the total polar bear harvest presently averages "approximately 100 animals annually," all of which are taken by Native subsistence hunters.

Lastly, based on aerial and boat surveys, in 1972 the Alaska Department of Fish and Game estimated the Alaska sea otter population at between 50,000 and 100,000 animals. Senate Hearings Part II at 892. Sixteen years later, FWS characterizes the otter population as "growing" and estimated the population at between 100,000 and 150,000 animals.

Interestingly, as the statistics set forth above indicate, after sixteen years of unregulated Native hunting, marine mammal species whose primary interaction with humans is Native hunters are in good biological condition, while several species taken incidentally in the course of commercial fishing operations have exhibited significant population declines.[4]

This is not to say that the implementation of the Native hunting exemption has been without controversy. Although Native harvest practices are subject to unwritten village traditions that over the generations have evolved to ensure the maintenance of healthy marine mammal populations, from the outset FWS has been uncomfortable with the idea of "unregulated" Native hunting. To help alleviate this concern, the Native community has undertaken three actions.

First, during the 1981 reauthorization AFN supported an amendment to section 109 of the MMPA that authorizes FWS and NMFS to adopt regulations requiring

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[3] According to the Marine Mammal Commission: "Sound estimates of the abundance of polar bears in Alaska or trends in population levels currently do not exist. This is related to a number of factors. . . . [T]he degree to which local populations are discrete is not fully understood. In addition, the probability of sighting a bear is related to habitat type, and even under ideal sighting conditions many bears are not seen . . . At present there is no way *a priori* to stratify a survey to account for difference in ice type in different areas. Finally, the density of polar bears is low enough that logistic constraints generally preclude surveying at a level of effort that will provide meaningful population estimates or indices of abundance." Species Accounts at 43.

[4] In 1986, for example, NMFS published notice of its intent to declare the Pribilof Island population of North Pacific fur seals "depleted." 51 Fed. Reg. 47,155. On May 6, 1988, NMFS published notice of its intent to declare the Alaska Steller sea lion population "depleted." 53 Fed. Reg. 16,299.

Native hunters to mark, tag and report animals taken during the subsistence hunt. In 1985 (four years after it was delegated authority to do so), FWS published a notice of proposed rulemaking announcing its intent to adopt a regulation governing the marking, tagging and reporting of walrus, polar bear and sea otter. 50 Fed. Reg. 49,577. Although more than a year ago the Eskimo Walrus Commission, by resolution, urged FWS to promulgate a final regulation, for reasons best known to itself, to date it has not done so.

Second, the Native community has established organizations and developed management plans intended to advance the conservation of marine mammal species through cooperative management and self-regulation. The Eskimo Walrus Commission, which represents Native walrus hunters in 18 villages from Kaktovik to Togiak, was organized in 1978. Headquarters in Nome, on May 21, 1987, the Commission entered into a cooperative management agreement for walrus with FWS and the State of Alaska. *See* Attachment A. The Commission collects teeth, stomachs, reproductive tracts, muscle and blubber tissue, livers and kidneys from village hunters which FWS analyzes to obtain data on age and sex composition, food supply and heavy metal and other contamination. In addition, the Commission subcontracts with FWS to monitor the walrus harvest at Nome and King Island. Lastly, the Commission works closely with village hunters to develop, and through self-regulation implement, appropriate conservation strategies. Prior to the 1986 season, for example, the Commission requested village hunters to take special care to reduce their take of female walrus with calves. In response to the request, 25 percent fewer females were taken in 1986 than were taken in 1985.

The North Slope Borough, the municipal government whose jurisdiction encompasses the North Slope of Alaska, has been involved in a similar cooperative management and self-regulation effort regarding polar bear. In January the Borough signed a polar bear conservation and management agreement with the Inuvialuit Game Council, an organization that represents Eskimo hunters in the Northwest Territory of Canada. *See* Attachment B. Section II of the agreement establishes a detailed management plan for the polar bear population that travels the ice pack between the two countries. One of the objectives of the plan is "to provide the maximum amount of protection to female polar bears." To achieve this objective, the agreement prohibits the use of aircraft for the purpose of taking polar bear, establishes a closed season, and prohibits that taking of sows and cubs.

In addition to the involvement of Native hunters in the development and implementation of walrus and polar bear management plans, Alaska Natives are involved in other cooperative management efforts. On January 28, 1988, North Pacific Rim, the nonprofit association representing Alaska Natives who reside in the Prince William Sound region, sponsored a teleconference at which representatives from villages from Bristol Bay to southeast Alaska agreed to organize an Alaska Native Sea Otter Commission to develop a cooperative management plan for the conservation of sea otters which Native hunters will implement through self-regulation.

Lastly, AFN, the Eskimo Walrus Commission, the Alaska Beluga Whale Committee and other affective Native organizations are working with the State of Alaska to test a new approach to marine mammal management. As the subcommittee is aware, in 1981 the MMPA was amended to streamline the procedure that enables states to apply for authority to regulate the taking of marine mammals. Since that time, the Alaska Department of Fish and Game has worked closely with residents of affected villages to determine whether the State should submit an application to regain regulatory authority. For reasons the State will undoubtedly detail in its own testimony, in March Governor Cowper decided that the State would not submit an application to regain regulatory authority over any marine mammal species. Instead, the Governor committed the State to a new approach. On March 9, 1988, Norman A. Cohen, Deputy Commissioner of Fish and Game, by letter, informed AFN that: "The state will initiate efforts to establish a system for developing comprehensive management plans for marine mammals. This process will involve the ADF&G, appropriate federal agencies, user groups, and other interested parties. The comprehensive management plans would be submitted to the Secretary of the Interior or Commerce for approval, and implemented through federal procedures or cooperative agreements."

In April, the Alaska Department of Fish and Game informed AFN that the State has identified the Pacific walrus as the marine mammal species which will be the subject of the first management plan. AFN looks forward to working with the State in this effort.

On April 8, 1988, William Horn, Assistant Secretary of the Interior for Fish and Wildlife and Parks, by letter, informed AFN that FWS did not intend to recommend that Congress consider any amendments to the MMPA this year that would affect

Native hunting. *See* Attachment C. In anticipation that Congress might consider amendments, last October that 1987 AFN Convention delegates, by resolution, identified amendments to the MMPA that the delegates believe will facilitate the implementation of the MMPA in Native villages. Copies of the resolutions are attached. *See* Attachment D. However, since FWS has not proposed amendments and the State's new approach to marine mammal management will take several years to develop and implement, AFN fully supports FWS's position that no amendments be considered this year. AFN understands that the consortium of environmental organizations led by Greenpeace agrees with this recommendation.

Mr. Chairman, the MMPA is sixteen years old. Since 1972, our collective experience implementing the MMPA indicates that Congress' original policy judgment was sound. As a result of the moratorium of directed taking, marine mammal populations in Alaska (other than those that interact at sea with commercial fisheries) have substantially increased. At the same time, the Native hunting exemption has enabled the traditional way of life to continue in Native villages whose subsistence and handicraft economies are dependent upon the harvest of marine mammals. And it has done so without unnecessary, and frequently heavy handed, regulation disrupting the texture of village life, and it has done so in a manner that has encouraged Native hunters to become involved in the conservation of marine mammal populations upon which the continuation of their way of life depends. For these reasons, AFN looks forward to continuing to work with FWS, the State of Alaska and interested environmental organizations to build on the foundation of mutual interest and cooperation the MMPA has created.

STATEMENT OF ANDREY MANDREGAN, JR., MAYOR, CITY OF ST. PAUL, AK

Mr. Chairman, Members of the Committee and the National Ocean Policy Study, I am Andrey Mandregan, Jr., Mayor of the City of St. Paul, Alaska. I am submitting this statement for your hearing record on behalf of the citizens of St. Paul, the elected members of the St. Paul City Council, the St. Paul City Manager, the St. Paul Island Trustee, and all Americans concerned about the development of a stable, self-sufficient, enduring and diversified economy on St Paul Island that is not dependent upon commercial sealing operations.

Mr. Chairman, the Fur Seal Act Amendments of 1983, Public Law 98-129, provided the framework for the independence of the Pribilof Islands from indefinite reliance for survival upon federal support payments. Under that Act, Congress terminated the annual Pribilof Islands Program payment and authorized the establishment of a trust to cover the costs of the transition from federally-supported sealing operations to a private-sector economy not dependent upon sealing. The St. Paul Island trust was established at $12 million and the Honorable Jay Gage was designated by the Secretary of Commerce as St. Paul Island Trustee.

Under Trustee Jay Gage's careful stewardship, the St. Paul Island trust, since its inception in March 1984, has provided funding for essential human services. Our community—which celebrated its Bicentennial in 1987— has held together, employment levels have been maintained to the extent possible, and planning has been accomplished for the construction and servicing of a world-class fisheries port facility on St. Paul Island. There is no doubt that the St. Paul Aleuts, after 200 years on the Island, would have been forced, in the absence of trust funding, to abandon their homes for an uncertain future on the mainland.

The St. Paul community faced almost overwhelming challenges in early 1984, when the trust was established and federal program funding was cut off. The trust, of course, was reserved primarily for basic human survival needs. Other funding had to be obtained for capital improvements to diversify and sustain an economy based upon the resources of the Bering Sea fisheries. St. Paul has met the challenges these past four years. The port infrastructure is nearly in place, and the St. Paul harbor project will be completed in mid-1989.

Since 1984 St. Paul has obtained and invested more than $9 million in port infrastructure, such as water supply, fuel facilities, sewer services, power lines and dock lighting. The State of Alaska has already invested more than $20 million in the St. Paul harbor project, and an additional $4 million in State funding is committed for the current year. Of greatest significance, the Anchorage District Engineer of the U.S. Army Corps of Engineers has recently completed all paperwork for completion of the St. Paul harbor project pursuant to section 204(e) of the Water Resources Development Act of 1986. The documentation for the St. Paul project will be presented to the Assistant Secretary of the Army (Civil Works) for his approval during the first week of June.

Assuming approval of the Corps' project by the Assistant Secretary of the Army, construction of the St. Paul Island navigation improvements will begin in July 1988. The federal cost share of the project is estimated at $15.7 million by the Anchorage District Engineer, and federal reimbursement in this approximate amount will be paid to the city of St. Paul upon completion of the general navigation improvements in May or June of 1989. Thus, the overall local, State and federal investment in the St. Paul harbor project and related infrastructure by July 1989 will be at least $48.7 million. The investment will be well-made: according to the U.S. Army Corps of Engineers, the economic benefit to the Nation from this fully-operational facility in the heart of the rich Bering Sea fisheries will be not less than $29.6 million annually.

Unfortunately, Mr. Chairman, the community of St. Paul Cannot survive until the port is complete and fully operational without additional trust funding. The Trustee has estimated that St. Paul Island trust is needed to maintain basic human survival services through the fall of 1990, when the income stream from port services will provide adequate revenue to maintain the community wholly within the private sector. In addition the City of St. Paul must find loan guarantee authority of not less than $1.5 million to purchase fuel supplies for the coming winter season.

Mr. Chairman, the Trustee has determined that not less than $1.7 million will be required to fund the City's operations (relating to human survival needs) for the City's Fiscal Year 1989 (June 88-June 89); an additional $1.7 million will be required for the City's Fiscal Year 1990; and an additional $500,000 will be required to accomplish the municipal obligations in attracting and establishing private businesses that will provide employment in fishery-related services. This amount of $3.9 million in additional funding for the St. Paul trust will be adequate to keep the community intact until the port is fully operational and sufficient private sector income is generated to maintain essential services.

There are good reasons why additional trust funding is needed on St. Paul to bridge the gap between cutoff of federal program payments and implementation of the City's plans for an economy not dependent upon sealing. Of highest importance, the Water Resources Development Act of 1986, which authorized construction of the St. Paul harbor project (along with many other projects), was delayed by Congress for several years, as all Senators know so well. The Corps could not proceed beyond its 1982 feasibility report on the St. Paul project without an authorization. In addition a severe storm in November 1984 washed out the partially-completed breakwater that had been built with State of Alaska funding.

The combination of these events, both beyond the control of St. Paul Aleuts, has delayed the completion of the St. Paul harbor and thus delayed the realization of the private sector benefits that the harbor will provide. Therefore, Mr. Chairman, St. Paul is requesting additional trust funding of $3.9 million for reasons that are both compelling and wholly appropriate.

Mr. Chairman, we must contemplate the tragedy if additional St. Paul Island trust funding is not made available. The public investment of more than $48 million in St. Paul since 1984 would be lost, as the community would have to be abandoned: St. Paul simply cannot survive a Bering Sea winter without funding for essential human survival needs. On the other hand, if the life of the trust is extended for two additional years, as requested, the investment on St. Paul will be preserved and the annual benefits to the Nation, in excess of $29 million according to the Corps of Engineers, will be realized. Of highest importance to the Aleut people, the 200-year old community of St. Paul will have been saved, after decades of struggle and past decades of near-servitude to the federal managers of the seal harvest. The promise of independence from federal control and dependency will have been realized, and the compact between our people and our government will have been kept.

The people of St. Paul have turned away from commercial sealing—they have embraced their opportunities in the fisheries industries. We ask that their sacrifices not be ignored or forgotten at this critical time in St. Paul's history. With $3.9 million in additional trust funding, the Trustee, Mr. Jay Gage, and the Aleut people of St. Paul, together believe that they can survive with dignity until the port is complete and fully operational on the Island.

Mr. Chairman, I will note that a loan guarantee of $1.5 million is needed for fuel purchases for the coming winter, and again for the winter of 1989–1990. These guarantees have, in the past, been provided by the Trustee, with trust assets as collateral. The community has never defaulted on its fuel purchases; the citizens have paid their fuel bills and the banks have been repaid from proceeds of fuel sales to the households and the utility. The City is currently working with the Alaska representative of the Economic Development Administration in an effort to obtain a federal loan guarantee for the fuel purchases under an appropriate provision of the laws administered by that agency.

Mr. Chairman, in conclusion, the community of St. Paul respectfully requests that this committee authorize an increase in the St. Paul Island trust of not less than $3.9 million, and that the committee, if necessary, support with appropriate directives the request of the City of St. Paul for a federal loan guarantee for the purchase of winter fuel supplies. I request that certain materials that are attached to this statement be made part of the hearing record, or be included in the committee's files, as appropriate and as directed by the Chairman. These materials include:

A Memorandum from Trustee Jay Gage to the Alaska Congressional Delegation and Hon. William Evans, dated February 26, 1988;

A series of three reports, dated January and February 1988, on the condition of the St. Paul Island Trust;

A Document entitled, "Condition of Economic Development and Diversification, St. Paul, Alaska," prepared by ICF TECHNOLOGY NORTHWEST, Charlotte L. Kirkwood, February 1988;

A Document entitled, "Community Economic Impacts from The Saint Paul Harbor Project," prepared by ICF NORTHWEST NATURAL RESOURCE CONSULTANTS, March 1988; and

A draft Agreement Under Section 204(e) of Public Law 99-662 Between the Department of the Army and the City of St. Paul, St. Paul Island, Alaska, for the Construction of St. Paul Island Harbor Project, prepared by the Anchorage District Engineer, U.S. Army Corps of Engineers, May 1988.

Thank you, Mr. Chairman, for this opportunity to submit testimony in support of increased federal funding of the St. Paul Island Trust. The City of St. Paul will be pleased to respond in writing to any questions that the committee or NOPS might wish to submit.

NOTE: STELLER'S SEA LION INTENTIONAL LETHAL TAKE ISSUE UNRESOLVED.

MARINE MAMMAL PROTECTION ACT

RECOMMENDED CHANGES FROM THE CONSERVATION COMMUNITY AND THE FISHING INDUSTRY

10 May 1988

This is a proposal to amend the MMPA to allow for a limited three-year special exemption in order to acquire and analyze data on the types, levels and implications of marine mammal-fisheries interactions. It is designed to continue protection for marine mammals, to enable commercial fishing to continue, and to improve on the current data collection, reporting and analysis systems.

I. Summary of Mutual Goals & Efforts

The conservation community and the fishing industry agree to support the following efforts:

1. The collection, compilation, and analysis of data on, 1) the marine ecosystem, 2) the population and biology of marine mammals, 3) the interactions of marine mammals with fishing operations and 4) the interaction of marine mammals with other marine mammals, in a form that is accessible, that interfaces with existing data bases, and that corresponds with regional approaches to be developed in the future.

2. To work with each other and with the resource agencies at the federal and state levels that manage marine resources to fill the information gaps that currently exist, and to develop recovery plans and pursue mitigation measures to reduce interactions consistent with the intent of the MMPA, and require the Agency to develop recovery plans.

3. To create a special, limited, three-year exemption from the incidental take permit requirements of the Act, for certain marine mammals, that will permit a joint effort to gather data and to inform user groups of the importance of their role in information collection.

4. To establish a process to assure that population reviews and changes in status designations are open and efficient, provide opportunity for timely input from the industry and the environmental community and occur in accordance with specified performance deadlines.

5. To urge the Congress to resolve the indemnification issue presented by observers, appropriate the funds for and pass, a three-year reauthorization of the MMPA to undertake proposed research, data collection and management activities described herein.

6. To meet annually with each other and with appropriate resource management agencies and the Marine Mammal Commission to assess and evaluate the progress of the three-year effort.

II. Education

The U.S. commercial fishing industry includes extremely diverse groups with varying interests and level of awareness concerning the operative provisions of the MMPA. The MMPA and its requirements may be unfamiliar to portions of the industry, as evidenced by the lack of participation in the present permit system. Thus, education of the user groups is a major issue which must be addressed by the industry, conservation community and government. As a beginning point for the development of an effective marine mammal education program, the industry, at its own expense, will develop and implement a comprehensive three year education program in 1988 with levels of effort and participation as mutually agreed upon by industry, by the conservation community and government. The program will inform fishermen about the operative provisions of the MMPA, types of permits, reporting needs, status of marine mammal populations, consequences of declining populations, known methods of reducing interactions and mortalities and the importance of cooperation in data collection.

III. Population Status Review Process

There has been insufficient opportunity for the fishing industry or the conservation community to make meaningful technical contributions during the early stages of the status review process regarding marine mammal species or population stocks involved in fisheries interactions in some instances. As a result, the technical opinions and information available outside the Agency _1/ have not always contributed to the status determination decision process.

_1/ "Agency" as used in this document means, as appropriate, the National Marine Fisheries Service and/or the Fish & Wildlife Service.

The conservation community and the industry jointly propose that the review processes be modified to provide for the convening of species-specific workshops at the earliest stage of population review. Convening of the workshop would occur whenever the Agency receives a petition requesting a status review, or whenever the agency undertakes such review upon its own initiative after a determination that substantial information warrants the review. _2/ Participation in the workshops is dependent upon the species or population stock under consideration, but will always include balanced representation from the fishing industry, the conservation community, state and federal agencies, the Marine Mammal Commission and academia.

Upon Receipt/initiation (Day 1):
Immediately upon receipt of a petition, or the initiation of an Agency internal process, to undertake a status review which could result in a change of determination or designation, the Agency will notice such in the federal register, and provide possible participants with a copy of the appropriate documents.

Within 30 days (By day 30)
When a petition has been filed, the Agency will determine whether substantial information has been presented that such a review is warranted. If this determination is made in the negative, the Agency shall provide the petitioner with a statement of reasons and publish that in the Federal register.

Within 60 days (By day 90)
If the information is sufficient to review the status, the Agency will convene a workshop to review best available data and to evaluate the population status and trends.

Within 60 days (By day 150)
Within 60 days after the meeting, the workshop participants will submit to the Agency a report summarizing the views and positions of all the participants based upon their review of best available data and evaluation of current status and trends.

Within 60 days (By day 210)
Within 60 days of the receipt of the workshop report, the Agency will publish in the Federal Register a) the findings of the workshop participants, b) if there is disagreement, the findings of the agency and a statement explaining why the Agency disagrees with the workshop participants' analyses, c) the Agency's proposed rule (or finding that no change is required) and d) a call for comments during a 45 day period.

After 45 days (On day 255)
Begin assessment of comments after the close of the comment period.

Within 45 days (By day 300)
45 days after the close of the public comment period on the proposed rule, the Agency shall publish in the Federal Register any final rule and allow for a 30 day cooling off period.

After 30 days (On day 330)
Final rule takes effect.

_2/ A status workshop shall not be convened for the current NMFS effort to determine the status of Northern fur seals.

IV. Three-year Limited Exemption

The following proposal is aimed at providing, for U.S. commercial fishing operations conducted by U.S. flag vessels, a special, limited, three-year exemption to the incidental take permit provisions allowed by Sec. 101(a)(2) of the MMPA in accordance with the provisions of Sec. 101(a)(4) and Sec.'s 103-104 for certain species specific in IV.A. It is applicable to those fisheries that have a continuing, documented interaction with certain marine mammals and that cannot qualify, either for a small take exemption as set out in Sec. 101(a)(4) because the take is not small with a negligible impact on a nondepleted species or population stock, or for a general permit under Sec.'s 103-104 because a lack of data makes a determination of OSP impossible or because the species has been designated depleted. _3/

The special limited exemption will be applicable to those fisheries identified by the NMFS as having continuing documented interactions with certain marine mammals (as set out below in section IV. A). The NMFS will convene a meeting of fishing industry and conservation community scientists before 1989 to assist in developing the final list of identified fisheries, or use the current NEPA process (relative to renewal of general incidental take permits under the MMPA) to identify such fisheries. A determination will be made, fishery by fishery, as to when general and small take permits are inapplicable and when an exemption letter is a necessity - and issuance of such letter can be conditioned upon reasonable mitigation measures. NMFS, through this same process, shall also determine those fisheries which have no continuing, documented interactions; in fact have only a very remote possibility of interactions with marine mammals. Vessels engaged in such a fishery (which, by example, may include crab pot fisheries) shall not be required to have general permits, small take permits or a letter of exemption, but shall be required to report the interaction to the NMFS within forty-eight hours. An unintentional, incidental take by such a vessel shall not result in a violation. Failure to report by any vessel shall expose that vessel to the full range of penalties for illegal takings under the MMPA. NMFS may terminate a fisheries status in this category and require a letter of exemption or other authorization if it determines that the level of take exceeds the "very remote possibility" threshhold.

_3/ In the case of a catcher boat/processor boat operation, the take of any marine mammal is attributed to the catcher boat. This does not however, absolve the processor boat from reporting requirements.

The program has five elements: 1) participation, 2) verification, 3) data management, 4) research, and 5) recovery plans and mitigation. Each of these elements is essential to the success of the special exemption and its acceptance by the fishing industry and the conservation community. They will, as well, contribute to future efforts to develop comprehensive marine mammal/fishery regional conservation plans endorsed by both the conservation community and the fishing industry.

The amendments which are proposed hereinafter only extend to the incidental taking _4/ of marine mammals set out in section IV.(A). No changes are proposed for existing permitting procedures for species or population stocks above OSP as established in Sections 103 and 104 of the MMPA. The proposed special exemption does not extend beyond three years.

The special exemption for continued fishing activities associated with marine mammals is contingent upon pursuing the following agreed-upon criteria and programs:

A. Marine Mammals Involved For This Exemption
The following Marine mammal species subject to interactions with fisheries are allowed to be taken under the special exemption: Steller's sea lion, Northern fur seal, harbor porpoise, harbor seal, killer whale, California sea lion, whited-sided dolphin, beluga whale, pilot whale, grey seal, ribbon seal, walrus. In no case shall the exemption apply to any species or population stocks listed under the Endangered Species Act, southern sea otters or any species taken by the tuna industry.

_4/ The definition of incidental takes for the purpose of this three-year limited exemption, applicable to those species in IV.A. is the same as is set out in the current general permit regulations for species and population stocks above OSP (this includes intentional, non-lethal deterrence, except for cetaceans). Provided however, the provisions as contained in existing regulations which allow, (after all non-lethal deterrent methods have been pursued), the intentional killing of a marine mammal upon the showing that it was causing substantial and immediate damage to catch or gear or about to cause personal injury, shall only apply in cases where species are increasing in population size. In no case shall the intentional killing of any cetaceans, southern sea otters or of any species which are declining, such as Steller's sea lions or Northern fur seals, be allowed.

B. Participation

1. Acquisition of letter of exemption:
   - a) All vessels/operators in fisheries identified by NMFS using the process identified in section IV must acquire an annual (calendar year) letter of exemption prior to fishing.
   - b) During the three-year period, holders of the letter will be exempt from the permit requirements of Sec.'s 103/104, and from the prohibitions on incidental taking of marine mammals. However, in the case of Steller's sea lions, the total incidental take shall not exceed 1350 per year and in the case of Northern fur seals shall not exceed 50 per year. The reason for these caps is that any level of take of these declining species will contribute to the decline.

2. Reporting System:

In order to develop a comprehensive data base on marine mammal/fishery interactions, it is essential that the fishing industry participate in reporting interactions. Absent a 100% observer program, the information and observations of fishermen must form one of the bases of any program. As a condition of receiving and retaining the exemption from the prohibitions of the MMPA, all vessels/operators holding exemption letters must:

a) Compile information to be submitted in a report at the close of the season, or bi-annually, if the season is longer than six months;

b) At a minimum each report must include the following information:

- Regional Fishery Type (gear, region, species of fish
- Statistical area, date and time of observation/interaction
- Species and types of observation/interaction
  1) Statement of no interaction
  2) All marine mammals incidentally killed during fishing
  3) All marine mammals incidentally injured during fishing including nature of injury
  4) All marine mammals deterred from gear or catch
  5) All marine mammals lethally removed to protect life, gear, or catch

- Desired optional additional information
  6) Species of marine mammals observed
  7) Marine mammals killed by other marine mammals
  8) Damage to gear or loss of catch to marine mammal

c) Reports must be filed even if there were no marine mammals observed or interactions noted.

3. Process

The process of obtaining a letter of exemption and compiling reported data must be developed in consultation with NMFS, the fishing industry which will be responsible for assuring that the program will be adequately funded, the conservation community and the appropriate state agencies. A major element is that a non-federal, centralized authority shall be responsible for issuing the letters of exemption, processing the information and making the data available. It must be computer accessible by the public within six months of the close of the calendar year.

4. Penalties

NMFS is responsible for enforcing this section. Penalties for violation are:

a) Vessels/operators fishing without a letter of exemption will be subject to the full penalties of the MMPA's prohibitions on the taking of marine mammals.
b) A vessel/operator having a letter of exemption in any year will not be entitled to a letter of exemption in the subsequent year, unless the vessel/operator files the required report.
c) In the first year of the exemption period, failure to report will result in the issuance of a warning letter.
d) In the second year of the exemption, failure to report will result in a $50 fine.
e) In the third year, failure to report will result in a $100 fine for the first required report not filed; a $250 fine for the second report not filed; and a $500 fine for the third report not filed.

5. Citizen Suit

If after the beginning of the third year, NMFS fails to proceed against a violator, then after 60 days notice and the failure of NMFS to commence legal

> action, a citizen may bring an action for the violation of this section against the vessel/operator for treble the penalty, except that if the vessel/operator qualifies as being below the Federal poverty level, there shall be no trebling.

C. Verification System

There will be two types of verification. All fisheries with continuing, documented interactions will be subject to Type 1. Fisheries with continuing, documented interactions may also be subject to Type 2. Any of the verification programs could include education efforts, dockside and shorebased interviews and observations, observers aboard marine patrol vessels and observers aboard fishery vessels. In all cases, maximum use will be made of existing verification programs. The observer program will be federally funded and in year 1 the industry will identify the vessels upon which observers will be placed; in years 2 and 3, a similar procedure will be followed unless insufficient vessels have been available, in which case NMFS will implement the program. The conservation community and industry recognize the nationwide concern for exposure of the vessel owner/operator to liability involved in accepting onboard observers. Placement of a sufficient number of observers, in order to achieve statistically significant verification of the take of marine mammals will be hindered until this issue is resolved. The conservation community and industry will seek congressional action to indemnify vessel operators and owners from liability resulting from onboard observers.

> Type 1. This type has two components: the first is instructive, designed to help fishermen understand the system in which they are participating and to assist them in filing the proper reports in the required form. The second component is a cross-check of the reliability of the reports filed. This type will be accomplished through a combination of efforts, and will occur throughout the three-year exemption. The object of Type 1 verification is to obtain a picture of the activity reported by fishermen, and compare it to the cross-check. The comparison of the two should have "statistical" validity. Type 1 is applicable to all subject fisheries throughout the exemption period.

> Type 2. This type, divided into two sub-types, is designed to determine and verify the level of incidental takes. It will occur in those fisheries which have not only a continuing, documented interaction with marine mammals, but where the interaction occurs with those species and population stocks of greatest concern. The first sub-type is used in fisheries where an historical observer data base on incidental take exists. The second sub-type is used in fisheries where there is no such data base. The coverage will range from 20 - 35% in the first year, and be adjusted thereafter as set out below.

(a) Where a historical observer data base exists, verification will use onboard observers (consistent with vessel capacity) for the first year to confirm the variation in takes reported from prior observer data including foreign fishing observer program and State observer programs and for Years 2 and 3, this sub-type will use the information on the variation in take obtained in Year 1 to design and implement an observer program with sufficient observer coverage to yield estimates of marine mammal take at a reasonable, statistically significant level.

(b) Where documentation of the level of interactions is limited, the Year 1 verification system will use a combination of efforts as appropriate to each fishery to establish a baseline indicating the variance in the levels of take. For Years 2 and 3, based upon the information of the variation in take obtained from Year 1 data, a program will be designed and implemented to yield estimates of marine mammal take at a reasonable, statistically significant level.

The fisheries identified below for verification by Type 2a or 2(b) have been selected based upon a literature survey. When, pursuant to the current NEPA process relative to renewal of several incidental take permits under the MMPA, NMFS DEIS and status of stocks reports are issued, these may be used to readjust the list of these fisheries, as mutually agreed upon. The verification shall be started in Year 1 and using the information derived from each project, continued for years two and three, unless it is shown that there is no significant, continuing interaction. Should new information be developed or new experimental fisheries be initiated, new Type 2 verification and monitoring efforts may be necessary.

Bering Sea and Gulf of Alaska. (Steller's sea lions, Northern fur seals, small cetacea including harbor porpoise, orca whales, harbor seals, ribbon seals and northern elephant seals). Type 2(a).

Except where provided below for longline and crab vessels, observer coverage of fishing activities in the Bering Sea/Gulf of Alaska shall, in years one and two, be based on a minimum 20 percent onboard observer coverage in each of the following fleets during each season for each fishery:

1. Groundfish factory trawlers (currently approximately 27 vessels);
2. Groundfish trawlers delivering to shoreside or other facilities (currently approximately 40

vessels);
3. Domestic motherships that only process fish caught by U.S. flag catcher boats (currently approximately 3 vessels);
4. Cod/sable/halibut longline vessels (currently approximately 50 vessels of sufficient size to carry observers); and
5. Crab vessels (currently approximately 110 vessels).

Except that, the total number of observers placed aboard groundfish factory trawlers, groundfish trawlers delivering to shoreside or other facilities and domestic motherships shall be at least twenty-four for each of two years. Thus, in each of years one and two, the minimum number of observers placed aboard groundfish factory trawlers, groundfish trawlers delivering to shoreside or other facilities and domestic motherships shall be approximately six, eight and one respectively. The remaining nine observers to be placed aboard groundfish factory trawlers, groundfish trawl vessels and domestic motherships will be allocated by NMFS based upon marine mammal and fisheries concerns. In year three, based on data collected in years one and two and on other relevant information, NMFS may adjust the observer coverage appropriately. For the longline fisheries listed above, NMFS may adjust the observer coverage after one year. For crab fisheries, observers added pursuant to this program may be reallocated after year one. If NMFS adjusts the observer coverage downward, in the case of longline or crab, the observers shall be transferred to other fisheries as needed based on marine mammal and fisheries concerns.

If, during years one and two, observer data, and data from other relevant sources, indicates a need for additional observer coverage in one or more of the Bering Sea/Gulf of Alaska fisheries enumerated above, NMFS shall place other observers in that fishery without subtracting from the number of observers operating in other fisheries. This program is in addition to existing observer coverage associated with joint venture operations. Nothing in this Agreement shall detract from any voluntary arrangement, or from any requirement of a state, or a Regional Fishery Management Council to employ more than 20% observer coverage on any fleet in any fishery.

Observers placed aboard vessels in the

Bering Sea/Gulf of Alaska shall be Living Marine Resource Observers and shall collect marine mammal data as provided for in this Agreement, fishery data a directed by NMFS, and such other data as required by NMFS, including, as practical, bird/fishery interaction. Funding for the Living Marine Resource Observers shall be divided equally between the Marine Mammal Protection Act and the Magnuson Fishery Conservation and Management Act. Observers funded under either statute will perform the defined functions discussed above.

Purse Seine, Round Haul and Lampara squid, anchovy and mackerel fishery, central-southern California. (harbor porpoise, pilot whales, Cal. sea lions) (Type 2(b))

Drift gillnet thresher shark fishery, Washington-Oregon. (Steller's sea lions, harbor porpoise, harbor seal, Dall's porpoise) (Type 2(a))

Salmon set and drift gillnet fisheries, Prince William Sound/Copper River (Steller's sea lions, harbor porpoise, sea otters, harbor seals, Dall's porpoise) (Type 2(b))

Salmon drift gillnet fisheries, Unimak and False Pass (Steller's sea lions, harbor porpoise, beluga whales, gray whales, harbor seals) Type 2(b)).

Columbia River salmon drift gillnet fisheries, Washington-Oregon (Steller's sea lions, Northern fur seal, harbor porpoise, harbor seals, gray whales, California sea lions). (Type 2(b))

California set gillnet halibut (harbor porpoise, sea otter, harbor seal, California sea lion) (Type 2(a)).

D. Data Acquisition, Compilation & Analysis

It is obviously important that information about marine mammals provided by fishermen, observers, monitors, state resource agencies, enforcement agencies, stranding networks and researchers should be compiled, analyzed and made accessible in a useful way. In addition, to move jointly toward a process that integrally manages marine resources, a complete and accurate information base about that environment is necessary. To that end, the agency or its designated contractor shall design a data management system that compiles the information in a timely manner and is compatible with other coastwide data bases. The information must be computer accessible to the public within six months of the end of the reporting period.

E. Research

Research plans and programs should be designed with a view to laying an important part of the groundwork for integrated, regional conservation of marine mammals and fisheries to be implemented after the conclusion of the three-year exemption, consistent with the MMPA and the MFCMA.

Research into marine mammal population dynamics, biology and fishery interactions undertaken by the agency should be keyed to the verification program, and initially focus on the species and population stocks of most concern, i.e., Steller's sea lions, northern fur seals and harbor porpoise (a species which is subject to incidental takes in a wide variety of fisheries but about which little is known).

Research efforts should be funded and undertaken by industry which focus on gear technology and fishing practices that minimize interactions and mitigate the impacts of incidental takes of marine mammals. The first annual meeting shall be used to ascertain the proper focus and levels of funding for this effort. Where appropriate, industry should make its vessels available to researchers as platforms of opportunity for this research and other related information gathering.

F. Recovery Plans, Ecosystem Protection Zones, and Mitigation Measures

The purpose of this section is to provide a more effective means whereby marine mammals and the ecosystems upon which they depend, may be protected and conserved. The elements include development of recovery plans, establishment of ecosystem protection zones, measures to provide extraordinary relief in emergency situations, and other mitigation mechanisms as appropriate.

1. Recovery plans: the agency shall develop and implement recovery plans for the conservation and rebuilding of declining populations of Northern fur seals, Steller's sea lions and harbor porpoise. In the first year a recovery plan must be completed for Northern fur seals and be begun for Steller's sea lions; in the second year the recovery plan for Northern fur seals must be implimented, the recovery plan for Steller's sea lions completed and a recovery plan for harbor porpoise begun; and in the third year, the recovery plan for Steller's sea lions must be implimented and the recovery plan for harbor porpoise completed and implimentation begun.

2. Habitat Protection Zones: Where the operations of a fishery have significant adverse impact on the marine

habitat upon which marine mammals depend and where such impacts could be reduced by restrictions on the manner of operations or location of the fishery, the agency shall propose for adoption to the appropriate state, or Council if affected, habitat protection zones. These areas will afford protection to marine mammals and the marine habitat upon which they depend through time, area or gear restrictions (or a combination thereof),. Habitat protection areas under consideration include hauling-out areas, rookeries and mating areas and areas of similar significance.

3. As research programs are undertaken and more information becomes available, mitigation measures including restrictions on the season or other period of time the animals may be taken; on the manner and locations in which the animals may be taken; and on fishing techniques which have been found to cause undue fatalities to any species of marine mammal in a fishery, may become appropriate to accomplish the goals of this section. Provisions shall be made to enable the agency to implement such measures through regulation.

4. In situations where the need to act immediately is critical to the protection or survival of a marine mammal species or population stock, authority shall be granted to the agency to establish emergency protection measures after consultation with the appropriate state agency and appropriate regional fishery management council.

V. Joint Objectives

The following joint objectives are ways to measure the success of each year of the special three-year exemption and the information gathering period as a whole.

Year 1:
- Sufficient education and information materials disseminated so that 40% of vessels/operators have received exemption letters and are reporting properly.
- Non-federal centralized authority identifies appropriate entry points in data base, identifies additional sources of marine mammal data, designs and distributes report forms, develops mechanism for receiving reports and process data.
- Agency designs and begins implementation of three-year research plan, begins recovery plans for Steller's sea lions and begins and completes recovery plan for Northern fur seals.

Year 2:
- Increased participation so that 60% of vessels/operators have received exemption letters and are reporting properly.
- Data entry, analysis of first year letter of exemption reports, refinements in system, and provisions made to make information accessible.
- Continue research program as identified in Year 1, complete recovery plans for Stellar sea lions, implement recovery plan for Northern fur seals and begin recovery plan for harbor porpoise.

Year 3:
- Full participation so that 100% of vessels/operators have received exemption letters and are reporting properly.
- Data receiving and processing system fully and readily accessible and compatible with other data bases.
- Conclude research program as identified in Year 1, implement recovery plan for Steller's sea lions and complete recovery plan for harbor porpoise and begin its implementation.

By March, 1991, agency prepares and submits a report to Congress on the level of achievement of each of the elements and objectives for the three-year period. Within 60 days of receiving the report Congress conducts hearings to assess the program.

VI. Funding

Both parties agree that the data collection, research, verification and analysis aspects of this agreement are essential for the success of the proposed program as well as effective conservation of the marine mammal and fishery resources of concern. It is important for Congress to recognize that resolution of the important multiple use ocean interaction questions will require substantial new government funding. Both parties will urge Congress that such funding is vital to and constitutes the foundation of the negotiated agreement.

VII. Miscellaneous

The Agency must prepare marine mammal recovery plans for all species designated as depleted or listed under the ESA. Time lines will be established regarding completion of such plans, and an amendment shall establish these plans as a permanent requirement of the Act with general applicability.

INTERIM REPORT ON THE INVESTIGATION OF MASS MORTALITY OF BOTTLENOSE DOLPHINS [1/]

BACKGROUND

Since early July 1987, unprecedented numbers of bottlenose dolphins, Tursiops truncatus, have died and washed ashore along the Atlantic coast from New Jersey to Florida. The earliest strandings, along the New Jersey shore, were investigated by personnel from the Marine Mammal Stranding Center in Brigantine, New Jersey. As the mortality moved south, in conjunction with the annual fall migration of the dolphins, personnel from the Smithsonian Institution's Marine Mammal Event Program became involved in the investigation.

The Marine Mammal Commission, as noted in its January 1988 report to Congress, on learning of the unusual dolphin mortality in late July 1987, immediately consulted with the National Marine Fisheries Service and scientists expert in the biology and disease of bottlenose dolphins. Based on these consultations, the Marine Mammal Commission concluded that more intensive examination of the situation was indicated, and asked Joseph R. Geraci, V.M.D., Ph.D., a member of the Commission's Committee of Scientific Advisors, to organize and lead the investigation.

To assist him in his efforts, the Commission arranged for the Department of Agriculture's National Veterinary Services Laboratory to conduct the range of bacterial and viral isolation studies and other analyses necessary to determine whether pathogenic organisms, environmental contaminants, or biological toxins were causing or possibly contributing to the dolphin mortality. The Marine Mammal Commission also arranged for the Smithsonian Institution to continue collecting basic data from stranded animals and with the U.S. Navy to provide facilities at the Little Creek Amphibious Base for detailed postmortem examination of dolphins. In consultation with the National Marine Fisheries Service, the Commission arranged for the Service's laboratory in Charleston, South Carolina, to perform toxicological analyses. The Commission also sought the assistance of the Environmental Protection Agency in obtaining information on offshore dump sites, possible illegal dumping, phytoplankton blooms, water movement patterns, and other environmental factors that might provide clues to the cause or causes of the unprecedented dolphin mortality.

The response team, with funding and administrative support provided by the National Marine Fisheries Service and the Marine Mammal Commission, began its investigations in the Virginia Beach area early in August. By August 9th, a multi-disciplinary team had been organized and was conducting a comprehensive investigation. The team included representatives of the Department of Agriculture, the National Marine Fisheries Service, the National Oceanic and Atmospheric Administration, the

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[1/] Submitted to the Marine Mammal Commission, 4/13/88, by J.R. Geraci, V.M.D., Ph.D., principal investigator, Wildlife Disease Section, Department of Pathology, Ontario Veterinary College, Univ. of Guelph, Guelph Ontario, Canada.

Smithsonian Institution, and the Environmental Protection Agency. In addition, many organizations and volunteers in the Virginia Beach area provided logistic support and other services. These included the Naval Amphibious Base at Little Creek, Virginia, the U.S. Coast Guard, the Virginia Beach General Hospital, the Eastern Virginia Medical School, the Virginia Beach Marine Science Museum, the Virginia Zoo in Norfolk, the Virginia Institute of Marine Science, Old Dominion University, the University of Maryland, the University of Rhode Island, and the police and public health departments of various communities in Virginia.

Later in the year, the focal point of the investigation shifted to Charleston, South Carolina (mid-October through December) and then to Florida. As the die-off continued to move south with the annual fall migration of the dolphins, response centers were established at Marineland of Florida, near Jacksonville, and at Sea World in Orlando.

APPROACH

Within a week of establishing the response team at Virginia Beach, several mobile recovery teams had been organized to collect beached dolphins from the southern shore of Chesapeake Bay to the Virginia-North Carolina border. Each suitable carcass was examined by specialists. Tissue and fluid samples were collected for isolation of bacteria, chlamydia, mycoplasma, fungi, and viruses. Tissues were also examined for a wide range of pollutants including heavy metals and organic compounds--over 12,000 in all. Specimens representing every lesion and organ system were collected for histopathology and some for electron microscopy. Samples of liver from selected animals were analyzed for dinoflagellate toxins.

To examine and obtain blood samples from live animals, four bottlenose dolphins were captured near Virginia Beach on August 16 and nineteen more between October 6 and 9. Blood samples were analyzed for hematology and serum chemical constituents including electrolytes, metabolites, enzymes, proteins and protein electrophoretic patterns, thyroid and adrenocortical hormones, and viral antibodies.

A bank of specimens has been established to meet the needs of the many laboratories committed to the investigation. Skulls and other skeletal material are deposited in the Smithsonian Institution for morphometric and ageing studies. The balance of material will be made available on request to other interested laboratories when it can be determined that the materials are no longer needed to complete the study.

Nearshore and offshore aerial surveys have been carried out on a scheduled basis by National Marine Fisheries Service personnel and contract investigators to locate stranded animals, identify trends in the mortality pattern, and determine the impact of the event on both coastal and offshore dolphin stocks. Aerial observers are also charged with verifying reports of dead dolphins floating offshore. In conjunction with that effort, representatives of the response team conducted opportunistic observations during two mid-Atlantic Coastal Eutrophication Survey cruises aboard the Environmental Protection Agency's survey vessel, O.S.V. Anderson, one on August 25-28, and the second on August 30-September 3, 1987.

Exploring the possibility that oceanic pollutants combined with unusual environmental events might be responsible for the dolphin mortality, a request was made to the Environmental Protection Agency for data relating to dumping of municipal and industrial wastes at the 12-mile and 106-mile dump sites off the mid-Atlantic states. A concurrent request was made to the National Oceanic and Atmospheric Administration for data on past and present weather and oceanic temperatures and current patterns which influence mid-Atlantic coastal waters.

On August 22, dead and dying blue crabs were reported to have come ashore at the Little Creek Naval Base, within the region where dolphins were stranding. Mr. M. Newman, a specialist in shellfish pathology from the National Marine Fisheries Service's Oxford Laboratory was invited to investigate the mortality. He concluded that a cell of warm anoxic water had moved shoreward, and under such conditions, blue crabs commonly crawl onto shore and die, or are killed by gulls and other scavengers. There was no apparent link between the event and dolphin mortalities.

When investigating problems of this kind, the possibility exists that pathogens associated with or incidental to disease might be transmitted from affected animals to persons handling them. At the outset, arrangements were made with the Virginia Beach General Hospital and the Eastern Virginia Medical School to examine all medical complaints, however minor, from members of the response team. During the investigation, at least six individuals with cuts, bruises, rashes, and throat and intestinal ailments have sought medical attention. None has been found to have a significant problem, or one that could be related to the conditions observed in the dolphins that have been examined.

RESULTS

Distribution and Patterns of Strandings

At least 600 bottlenose dolphins have stranded along the Atlantic coast. In June, 3 carcasses were found in New Jersey and 2 in the Chesapeake Bay-Virginia Beach area. In July, the numbers rose dramatically to 29 and 35 respectively. Mortality rates remained high during August and September, by which time it was evident that the mortality was moving southward in conjunction with the annual movement of dolphins during late summer and early fall. To date, at least 375 dolphins have died between New Jersey and Virginia, 37 in North Carolina, 43 in South Carolina, 9 in Georgia, and 150 in Florida, north of and including Ft. Pierce, midway between Miami and Daytona Beach. Strandings continue at a low level, particularly along the east coast of Florida. In early February, an aerial sighting of 9 dolphin carcasses on Horn and Petit Bois Islands in the Mississippi Sound, sparked concern that the condition might have spread into the Gulf of Mexico. No other deaths have been reported in the Gulf of Mexico since that time, and there is no evidence that the condition has spread into that region.

Condition of the Dolphins

Common trends were noted in the condition of the stranded dolphins. Those that came ashore in August and early September had a range of skin lesions. Small blisters and pock-like craters were common over the head region, particularly around the lips and snout, and in the soft tissues of the mouth. The dorsal fin, flippers, and tail flukes were also affected to some extent. Rarely, the entire surface of the body was covered with round raised pox-like lesions measuring up to 1 cm in diameter. These were sampled and processed for virus isolation and identification by electron microscopy.

Dolphins during the summer months were also affected by a process whereby large areas of skin had sloughed, exposing underlying intensely reddened dermis. In some cases, large blisters formed and coalesced into broad sheets of epidermis floating on a fluid-filled bed. The epidermis could be peeled back as easily as a covering of cellophane. This condition could be distinguished, both by character and cause, from the pox-like lesions. The blood vessels in the underlying dermis contained bacteria which had formed septic thromboemboli, leading to ulcerations and degeneration of the epidermis. In more longstanding cases, the dermis had been invaded by ciliated protozoa. This condition was one manifestation of systemic bacterial invasion which seems to have been the ultimate cause of death in many of the dolphins during the hot summer months. As time progressed, fewer of these lesions were noted, whereas the pox-like condition on the lips and snout was still evident in dolphins recovered in late February.

Other findings in the dolphins were also related to septicemia, and particularly to the effects on blood vessels which had been destroyed by bacteria. The vessel walls became fragile and necrotic, and were unable to contain blood. The plasma or fluid portion leaked into tissue spaces causing edema in many of the organs, and the accumulation of impressive quantities of blood-tinged fluid in the thoracic and abdominal cavities. Affected organs underwent necrosis as a combined effect of impaired circulation and bacterial toxins. In some cases the animals appeared to have died during the acute phase of bacterial infection. Others, less severely affected, had a more protracted illness which terminated in pneumonia, cerebral hemorrhage, secondary invasion by fungal organisms, and vascular collapse or shock. As time progressed, the dolphins showed more advanced, often chronic, forms of lung and liver disease, suggesting that the insult which triggered the event might have been limited in space and time.

Bacteriology and Virology

Preliminary studies reveal the presence of a wide variety of bacteria associated with these conditions. The organisms include members of the genuses Edwardsiella, Streptococcus, Vibrio, Pseudomonas, Klebsiella, Acinetobacter, Bacillus, and Staphylococcus, among others. Primary isolations were undertaken at the United States Department of Agriculture's National Veterinary Services Laboratory in Ames, Iowa, and at the Virginia Beach General Hospital. The agents are being characterized in conjunction with the Centers for Disease Control in Atlanta, Georgia, and laboratories at the University of Maryland (Drs. G. Morris and R. Colwell).

The relation of these organisms to the epizootic is rather tentative. Some, such as Vibrio, normally occur in warm coastal marine waters. They, and many of the other species, can be isolated from healthy dolphins. Evidence from histopathology, the nature of the organisms themselves, and the pattern of mortality as it continues, suggest that the bacteria and fungal organisms are not primarily responsible for the outbreak of disease, and are more likely to be opportunists, able to infect an animal once it has been weakened by stress or other circumstances which suppress the immune system.

In this regard, the investigation responded to ardent public concern that immune suppression might be a form of "dolphin AIDS". Dr. R. Benveniste of the National Cancer Institute, National Institutes of Health, Bethesda, MD has examined a number of blood and tissue samples for evidence of infection by retroviruses, including the human immunosuppression virus (HIV) associated with Acquired Immune Deficiency Syndrome (AIDS). Tissue samples and peripheral blood lymphocytes isolated from live dolphins were co-cultivated with normal human peripheral blood lymphocytes, human lymphocyte lines HuT78 and MOLT3, human monolayer cell line A549, and canine monolayer cell line PCf2TH. These cell lines support the growth of almost all known mammalian retroviruses, including HIV. Results to date are negative.

At the Eastern Virginia Medical School, under the direction of Dr. K. Somers, tissue specimens and lesions from dolphins are being evaluated for the presence of viruses by electron microscopy, immunofluorescence, and cytopathic effects in tissue culture. No virus particles have been observed in direct examination by electron microscopy. Specimens have also been negative for viral antigens using monoclonal antibodies specific for influenza A and B, parainfluenza 1 and 3, varicella-zoster virus, herpes simplex 1 and 2, and adenovirus.

Viruses were detected from 4 of 12 dolphins, on the basis of cytopathic effects in primary monkey kidney cell cultures inoculated with tissue extracts. The same extracts had no effect on human skin cell cultures, human carcinoma cell lines, or mink lung cell cultures. A papovavirus was detected by electron microscopy in infected monkey kidney cells. The virus was immunologically related to simian virus 40 (SV-40) as demonstrated by immunofluorescence with antiserum specific for VP 1 capsid antigen of SV-40. Uninfected monkey kidney cells were negative for virus particles by EM and SV-40 capsid antigens by immunofluorescence. The papovavirus as well as herpes-like particles isolated from mouth lesions from a dead dolphin are being characterized. Samples are also being re-evaluated using dolphin kidney cell cultures.

The laboratory at Ames, Iowa has conducted a broad range of virological studies on tissues, fluid samples and lesions from stranded and live-captured dolphins. Suspensions of lung, liver, spleen, kidney, intestine, and lymph nodes were inoculated onto fetal porcine kidney (FPK) roller tubes, and bovine turbinate (BT) Leighton tube cell cultures. Two 7-day passages were made in the FPK cultures, and two 10-day passages in the BT cultures. No evidence of viral infection was observed in any of the cell cultures.

Serological studies were carried out on samples collected from the live dolphins captured in October. The samples have been tested for bovine leucosis by agar gel immunodiffusion (AGID), bluetongue (AGID), contagious ecthyma by complement fixation (CF), chlamydia psittaci (CF), equine infectious anemia (AGID), equine rhinopneumonitis by serum neutralization, and ovine progressive pneumonia (AGID). Results for all tests have been negative. Low titres on CF tests for chlamydia were insignificant.

Sera were also tested for vesicular stomatitis virus by neutralization test - Indiana (NT-IN 1:32), and neutralization test - New Jersey (NT-NJ 1:32). Results were negative. Virus studies are still under way at the U.S.D.A.'s Ames laboratory.

Environmental Correlates

Steps are being taken to determine the possibility that an environmental disturbance or condition may have diminished the effectiveness of the dolphins' immune system, making the animals more vulnerable to invasion by infectious agents. Four lines of investigation are being followed: review of the types and amounts of industrial and municipal wastes discharged into mid-Altantic coastal waters; an assessment of meteorological and oceanic current and temperature patterns--historical and present--that might have affected the biota of the region and the distribution pattern of discharged wastes; an examination of tissue levels of heavy metals, organochlorines, and other contaminants; and an examination of tissues for biological toxins of the type produced by dinoflagellates.

The Environmental Protection Agency is assisting with the acquisition of data on dumping of wastes in the New York Bight region. Some information on the 106-mile Site has been provided. A request has been made for a report on the history of disposal practices, dispersal patterns, and concentrations of wastes in sediments at the 12-mile Dump Site. The Site is relatively close to shore, in an area in which bottlenose dolphins occur in the summer months.

A request has been made to the National Oceanic and Atmospheric Administration for data on meteorological and oceanic current and temperature patterns along the mid-Atlantic region. Preliminary data suggest that the temperature of surface waters was uncharacteristically high during the summer of 1987. Such conditions might have promoted a bloom of established microorganisms, favored the rise of new forms, or transformed relatively harmless species into pathogenic variants. Data on temperatures and current patterns will help to augment laboratory studies, now under way, on the relationship between Vibrio sp. isolated from the dolphins, and those collected from various sites along Chesapeake Bay and the mid-Atlantic coast.

Toxicology

Tissue samples for toxicology are being analyzed at the Department of Agriculture's Veterinary Services Laboratory at Ames, Iowa. Liver and blubber samples for pesticides and chlorinated hydrocarbons are processed through a lipid extraction and purification procedure, and subjected to gas chromatography. The identification of contaminants in selected tissues is confirmed using mass-spectrometry. The same laboratory is analyzing heavy metals in liver. Each sample is blended, digested, and subjected to inductively coupled plasma spectrophotometry. Preliminary results reveal the presence of a wide range of chlorinated hydrocarbons and heavy metals. The levels of many of the fat-soluble compounds are similar to those reported in the literature on cetaceans. [illegible]parisons are difficult to make since the available data are reported in an inconsistent manner, and do not take into account lipid concentration of each tissue. This study will attempt to resolve some of the disparities in the literature and approach the question as to whether high concentrations in liver are indicative of the total body load, or reflect mobilization of compounds from other fat depots. Of particular concern is whether a starving animal, using blubber fat for energy, mobilizes lipids through the liver thereby delivering overwhelming quantities of toxic substances.

The investigation also includes an examination of tissues and stomach contents for evidence of biotoxins. Samples from 5 dolphins were analyzed for paralytic shellfish poisoning (PSP) toxin, at the National Marine Fisheries Service's Laboratory at Beaufort, South Carolina. No evidence of the toxin was found.

A concurrent study on humpback whales, Megaptera noveangliae, indicates that a negative finding for biotoxins is not necessarily significant. Between November 28, 1987, and January 2, 1988, 13 humpback whales stranded along the shores of Cape Cod Bay. Analyses of Atlantic mackerel, Scomber scombrus, collected from the stomach of one whale, and from the region where the whales had been feeding at the time of the strandings revealed the presence of PSP in the viscera, although there was no evidence of toxicity in the flesh of the fish. The presence of the toxin was confirmed by mouse bioassay tests in three independent laboratories. Additional studies identified "saxitoxin", one of the more potent components of PSP toxin. Of particular interest, is the fact that the whale which had PSP in its stomach had no evidence of the toxin in liver and kidney. Unlike lipid-soluble compounds, water-soluble PSP toxin acts quickly and leaves little or no trace as a tissue residue.

On the basis of these findings, the principal investigator has asked two of the laboratories that collaborated on the whale study to examine stomach contents collected from the dolphins which died in early summer. The PSP toxin is being investigated in the laboratories of the Massachusetts Department of Public Health, one of the few laboratories in the country engaged in such studies. Each test involves intraperitoneal inoculation of tissue homogenate into mice, as a bioassay screening procedure. Samples are also processed by extraction and purification, and active compounds identified and quantified using high pressure liquid chromatography (HPLC).

Samples of dolphin liver are also being analyzed for brevitoxin produced by Ptychodiscus brevis, the dinoflagellate responsible for the "red tide" phenomenon. The toxin differs chemically and in its biological effect from that of PSP. It is fat-soluble and traces might be identified bound to lipid in the liver of mammals that have died of its effects. Recently, shellfish beds in North and South Carolina were closed to commercial harvesting, due to the accumulation of brevitoxin. The situation is unique, and its possible relation to dolphin mortalities must be explored. The highly specialized tests are being carried out in the laboratory of Dr. D. Baden, University of Miami. Samples are processed by extraction and purification through flash chromatography. Methanol extracts are then tested for toxin activity in a bioassay using mosquito-fish, Gambusia affenis. If positive, the sample is processed for identification of brevitoxin using thin layer chromatography and HPLC. We are testing samples from 30 dolphins, ten from each of the early, middle and late phases of the epizootic.

CURRENT STATUS

The impact on the near-shore population of Tursiops along the east coast has been substantial. Perhaps 50% or more of the animals have died, and the mortality pattern shows that some of the survivors may be severely debilitated. While stranding frequency has diminished, animals continue to be collected and processed for laboratory studies.

With renewed support from the Office of Naval Research, the National Marine Fisheries Service, and the Marine Mammal Commission, the investigation is now under way at an accelerated pace. Centers of activity are as follows: the Ontario Veterinary College, where Dr. N. C. Palmer, an internationally recognized veterinary pathologist with experience in marine mammal pathology, will conduct histological assessments and direct studies into quantitative histology of selected tissues; the Eastern Virginia Medical School, where Dr. K. Somers will continue to characterize viral isolates; the Massachusetts Department of Public Health, where Mr. R. Timperi will analyze for PSP toxins; the University of Miami, where Dr. D. Baden will investigate lipidsoluble biotoxins; the Department of Agriculture's National Veterinary Services Laboratory where Dr. H. Nelson's team will undertake studies on anthropogenic substances; and the Strategic Assessment Branch, National Oceanic and Atmospheric Administration, where Dr. C. N. Ehler has agreed to assist in the review of available data on oceanic transport of anthropogenic substances and other environmental correlates along the southeast coast. In addition, related work is being done by the Smithsonian Institution, National Institutes of Health, the Department of Health, Education and Welfare's Centers for Disease Control, National Marine Fisheries Service, U.S. Fish and Wildlife Service, New England Aquarium, Environmental Protection Agency, Sea World Enterprises, Inc., Marineland of Florida, and South Carolina Wildlife and Marine Resoures Department. Special thanks are due to Greenpeace for its activities related to locating, collecting, and delivering animals for examination.

The investigation is being directed from, and the results collated and interpreted at, the Ontario Veterinary College, under the direction of Joseph R. Geraci, V.M.D., Ph.D. Most of the laboratory results are expected to be in hand by the end of June, with an additional 2-3 months to develop an integrated report. Present funding is adequate to meet the needs of the studies identified in this report. Additional support would be required to probe in greater depth new avenues of research which might develop from the findings.

STATEMENT ON BEHALF OF
JAPAN FISHERIES ASSOCIATION
CONCERNING THE MARINE MAMMAL PROTECTION ACT

BEFORE THE
COMMITTEE ON SCIENCE, COMMERCE AND TRANSPORTATION
UNITED STATES SENATE

JUNE 1988

On behalf of the Japanese fishing industry, the Japan Fisheries Association (JFA) hereby submits this statement concerning the administration of and the amendments under consideration to the Marine Mammal Protection Act (MMPA) in conjunction with the hearing of the Committee on the MMPA reauthorization held on May 19, 1988.

The JFA represents the Japanese fishing industry, including the Federation of Japan Salmon Fisheries Cooperative Associations whose permit under the MMPA was the subject of the recent Court of Appeals decision in the Kokechik case.

SUMMARY

The JFA strongly urges the United States Congress, should the Kokechik decision not be judicially reversed, to amend the MMPA so as to allow incidental take of an insignificant number of marine mammals from species that have not been included in permits issued under the MMPA in the past, without discrimination between foreign fisheries and U.S. domestic fisheries.

Above all, we expect the U.S. Government to take appropriate measures to allow the Japanese mothership salmon fishery to operate within the U.S. 200-mile zone in order to fulfill the U.S. responsibility in the international community because (1) the fishing operation of the mothership salmon fishery within the U.S. 200-mile zone is a legitimate and guaranteed right under the International Convention for the High Seas Fisheries of the North Pacific (INPFC) and (2) it is extremely difficult to believe that the salmon fishery has detrimental effects on the Northern fur seal population, judging from the best available scientific information on the population size and the actual level of incidental take.

I. AS CONSTRUED BY THE COURT OF APPEALS THE MMPA DENIES THE LEGITIMATE AND GUARANTEED FISHING OPERATION OF THE JAPANESE MOTHERSHIP SALMON FISHERY WITHIN THE U.S. 200-MILE ZONE UNDER THE INPFC.

The JFA has a grave concern about the current hardships of our mothership salmon fishery as a result of the decision of the Court of Appeals in the lawsuit regarding the marine mammal incidental take permit issued to the fishery by the U.S. Government under the MMPA. Needless to say, unless the Court's order is overturned, it will be impossible for the mothership salmon fishery to fish within the U.S. 200-mile zone in the future. Furthermore, if the population level of even one species of marine mammals which could be incidentally taken in the course of a fishery cannot be proved to be consistent with the unreasonably strict criteria of the MMPA as construed by the Court of Appeals, the fishery will not be able to continue in the U.S. zone -- even if it is well documented that the incidental take of the marine mammal species by the fishery has been minimal for years.

Recognizing the imminent necessity of avoiding such an irrational situation and absent a judicial reversal of the Court of Appeals decision, the JFA, on behalf of the whole Japanese fishing industry, would strongly request the U.S. Congress to make serious efforts to amend the MMPA appropriately. Although there is some indication also in the United States to amend the MMPA in order to allow commercial fisheries to continue, measures to be adopted should not be limited to U.S. domestic fishermen, nor discriminately applied to foreign fishermen with irrational conditions.

II. IT IS ESSENTIAL TO ALLOW THE MOTHERSHIP SALMON FISHERY TO OPERATE WITHIN THE U.S. 200-MILE ZONE IN ORDER TO MAINTAIN THE INPFC REGIME, WHICH IS VERY BENEFICIAL TO THE UNITED STATES.

1. For the conservation of North American origin salmon, we have given up the right to fish for Asian origin salmon in the waters of the North Pacific outside 200-mile zones on the condition that the Japanese mothership salmon fishery within the U.S. 200-mile zone is secured under the INPFC regime. In addition, we have been submitting detailed statistics of salmon catch to the United States and Canada. The Government of Japan has also been conducting scientific research for a long time on salmon, marine mammals and other species with a substantial number of research vessels. It should be also noted that the Government of Japan has taken

strict measures to prohibit the importation of salmon from countries fishing for salmon in the waters of the North Pacific outside the 200-mile zones in order to discourage these unregulated fisheries.

These comprehensive efforts by Japan for the conservation of North American salmon are undoubtedly beneficial to the United States.

2. With regard to marine mammals incidentally and unavoidably taken by our salmon fishery, we have been conducting such measures as recording and analysis of incidental take data, research and study to assess marine mammal populations and to collect biological information, acceptance of U.S. scientific observers on board motherships and catcherboats, and development and introduction of improved fishing gear and techniques to reduce mortality by incidental takes. The Japanese fishing industry, like the Government of Japan, has been making serious efforts in accordance with the INPFC Convention, the Japan-U.S. Memorandum of Understanding regarding marine mammals, and U.S. domestic laws. We believe that our efforts have been highly appreciated by U.S. people concerned, as evidenced by many statements which have emphasized the necessity for the United States of maintaining the INPFC regime.

3. For example, Mr. Edward E. Wolfe, the Deputy Assistant Secretary of State for Oceans and Fisheries, stated as follows on June 25, 1987, to the United States District Court for the District of Columbia.

> " The conservation of North Pacific and Bering Sea fisheries, in particular salmon, and the reduction of incidental take of marine mammals pursuant to fishing activities, has been an important objective of the United States fisheries management, environmental and foreign policy for many years. It still is. The INPFC significantly furthers these interests. It protects North American salmon stocks, even when they venture well beyond the United States EEZ. It also provides the basis for obtaining scientific data on marine mammals that the United States might not otherwise be able to afford. In addition, by prohibiting salmon fishing in broad areas outside the United States EEZ (approximately 800,000 square nautical miles in the North Pacific and Bering Sea), the INPFC provides important protection to United States stocks of marine mammals that also migrate well beyond the EEZ.

> The United States has had a long and mutually beneficial fishery relationship with Japan, including under the INPFC. There is a history of close cooperation between the United States and Japan in carrying out the objective of the INPFC. To this end, in 1986 the Annex to the INPFC was amended establishing new limitations on Japan's salmon fisheries operations in the North Pacific Ocean and Bering Sea in both the United States EEZ and areas outside the EEZ covered by the INPFC. If this fishery relationship with the INPFC were disrupted, it could result in North American salmon conservation schemes being irreparably damaged. It could also result in even greater losses of marine mammal than at present."

We would like to request the Congress to make every effort to secure the legitimate and guaranteed right of the Japanese mothership salmon fishery to operate within the U.S. 200-mile zone, in recognition of the critical necessity of maintaining the INPFC regime, which is extremely beneficial for the United States.

III. IN REFERENCE TO THE CURRENT ISSUE OF NORTHERN FUR SEAL INCIDENTAL TAKE, OPERATION OF THE JAPANESE MOTHERSHIP SALMON FISHING FLEET IS CONSIDERED TO HAVE NO ADVERSE EFFECT ON THE STOCKS OF NORTHERN FUR SEALS FOUND IN THE OPERATIONAL AREA IN LIGHT OF THE CURRENT LEVELS OF NORTHERN FUR SEAL POPULATIONS AND INCIDENTAL TAKE OF THIS SPECIES BY THIS FISHERY.

1. A total of 28 individuals Northern fur seals were taken incidentally for the six-year period from 1981 to 1986 (4.6 individuals / year) by the Japanese mothership salmon fleet under the annual Northern fur seal incidental take quota of 450 individuals. Of those 28 individuals, only one was recorded as dead for the five-year period from 1982 to 1986 for which live or dead status of the fur seals incidentally taken can be distinguished in the records.

2. Dr. Seiji Ohsumi, a Japanese marine mammal scientist of global fame in this field, states that only the Commander stock of Northern fur seals is susceptible to the mothership salmon fishery, and the Pribilof stock incidentally taken is minimal based on the historical information on spatiotemporal distribution of incidental take of this species in this fishery.

He also states that the Commander stock is recently within the optimum sustainable population (OSP), the population has been increasing with the 4,000 - 5,000 commercial catch annually, and the majority of animals incidentally taken by the mothership salmon fishery are young males (in light of the location of incidental take); he concludes, therefore, that a level of take even equivalent to the past incidental quota for this species (450 individuals / year) within the 200-mile zone is unlikely to result in deterioration of the stock. (Chapter 8 of Takagi, Kenji (Editor), 1987, Comprehensive report on research on marine mammals in the North Pacific Ocean, relating to Japanese salmon driftnet fisheries, 1984-86.) (Document submitted to the Annual Meeting of the International North Pacific Fisheries Commission, Vancouver, Canada, Oct. 1987, 112p, Fisheries Agency of Japan, Tokyo, Japan.)

3. Concerning the Pribilof stock of Northern fur seals, of which incidental take in the Japanese mothership salmon fishery is considered minimal, a final rule was recently published on the Federal Register (Vol. 53, No. 96, May 18, 1988, pp. 17,888 - 17,899) announcing that the current population is below the lower boundary of OSP and, therefore, the NMFS is designating the Pribilof Island population of Northern fur seals as "depleted" under the MMPA.

However, in reference to the current stock condition of the Pribilof stock of Northern fur seals, the NMFS expressed the following view in that announcement:

> " In our view this species' population of about 1 million is probably not at or near a critical level that could lead to extinction in the foreseeable future."

Furthermore, in reference to the harvest taking place on the Pribilof Islands by the Pribilovians, the NMFS mentioned the following and concluded that this level of removal of mostly young males (1,423 - 1,802 individuals / year) could not be expected to contribute to a population decline:

> " Clearly, an annual harvest in the range of 1,423 (1986 harvest total) to 1,802 (1987 harvest total) mostly subadult males, or less than 0.25 percent of the stock, could not be expected to contribute to a population decline or prevent a return to high population numbers."

In addition, the NMFS's view appearing in that announcement on incidental take of Northern fur seals by commercial fisheries is as follows:

> " We believe the number of fur seals incidentally killed in both foreign and domestic fisheries is less than 50 each year. At this time, based on

> observer reports, incidental take in active gear of foreign or domestic fisheries in the EEZ and territorial waters does not appear to be a significant cause of mortality and is not considered a likely factor in the population decline."

These views imply that the Government of the United States endorses the fact that the effects of the Japanese mothership salmon fishery on the Pribilof stock of Northern fur seal is minimal.

In conclusion, from the viewpoint of the actual condition of incidental take of Northern fur seals by the Japanese mothership fishery and the proved insignificance of effects of the incidental take by the Japanese mothership salmon fishery on the stock of Northern fur seals, the situation where the operation of the Japanese mothership salmon fleet is not permitted while the harvest of Northern fur seals by the Pribilovians is allowed should be avoided.

IV. IF THE KOKECHIK DECISION IS NOT OVERTURNED, AN APPROPRIATE AMENDMENT TO THE MMPA IS VITAL FOR MAINTAINING A GOOD RELATION BETWEEN JAPAN AND THE UNITED STATES IN THE FIELD OF FISHERIES.

Since the beginning of the year Japan has been certified under the Packwood-Magnuson Amendment and the Pelly Amendment, notified that it would receive no allocation in the Bering Sea and Aleutian areas, and denied the right to have the mothership salmon fishery fish in the U.S. 200-mile zone by reason of the Kokechik decision. If the effect of the Kokechik decision is not overturned, either by the courts or by Congress, to allow the Japanese fishermen incidentally to take a small number of marine mammals not covered by an MMPA permit, the foundation of the fishery relation between Japan and the United States may collapse.

That is even more so since the Department of Commerce has indicated that while the rationale of the Kokechik decision will apply to the Japanese permit at least for the remainder of 1988, it will not be applied to permits of U.S. fisheries for the remainder of 1988, even though such rationale is applicable to U.S. fisheries in relation to the take of depleted species. (U.S. permits are subject to cancelation or revision to bring them into conformity with the current state of the law.) This is grossly discriminatory against Japan. The Japanese fishing industry as well as concerned members of the Japanese Diet are increasingly frustrated by such actions and are pressing the Japanese Government to make an appropriate response. For example, the mothership salmon fishery recently requested the withdrawal from the INPFC.

In addition, failure of the United States to meet its commitments to Japan under the INPFC Convention would almost certainly result in increased political support in Japan for restrictions upon imports of U.S. fish products.

Japan is the world's largest market for seafood products and the United States is a major beneficiary of that market. The U.S. Department of Commerce estimates that Japan purchased seafood products valued at over $1.1 billion from the U.S. in 1987 --- out of total U.S. exports of about $1.85 billion. By contrast, Japan's exports of fish products to the United States were less than $500 million. Thus, the United States currently enjoys a trade surplus with Japan in fisheries products of over $600 million per year. Japan has cooperated with the United States to increase Japanese purchases of U.S. seafood still further, modifying domestic trade regulations thought by the U.S. to impede the flow of U.S. products into Japan.

As a matter of fact, most of the rapid progress of "Americanization" of the U.S. 200-mile zone off Alaska can be attributed to the growth of the Japanese market for U.S. fishery products. The U.S. Commerce Department predicts an increase in U.S. pollock exports to Japan of about $100 million in 1988, as well as continued improvement in the terms of trade in herring.

The Department of Commerce has indicated that the ancillary effects of failure to allow the Japanese to fish within the U.S. 200-mile zone for salmon includes "loss of Japanese markets to U.S. salmon and salmon products." (Environmental Impact Statement on the Issuance of a General Permit to Allow an Incidental Take of Dall's Porpoise by the Japanese Salmon Fishery Inside the United States Exclusive Economic Zone, at 13.) This would be a very significant loss that would hit Alaska particularly hard.

CONCLUSION

The exclusion of the Japanese salmon fishery from the U.S. zone is the result of a judicial construction of the MMPA that makes the MMPA unworkable, which has been widely acknowledged by U.S. fishing industry and environmental groups and by members of Congress.

In the process of enactment of the MMPA, it was unlikely that the U.S. Congress had an intention to invite the situation where commercial fisheries, including U.S.

domestic ones, are totally prohibited because of minimal, inevitable and unintentional incidental takes of marine mammals not covered by a permit.

The JFA, therefore, urges that in the event that the Kokechik decision is not judicially reversed, the MMPA should be amended through the sound judgement of the U.S. Congress to allow continuation of commercial fisheries within the U.S. 200-mile zone in the future, which will contribute to sound development of the economies of both the United States and Japan in the field of fisheries.

T. Takahashi

Takenobu Takahashi
Designated Representative
Japan Fisheries Association

American Association of Zoological Parks and Aquariums

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April 13, 1988

The Honorable Ernest F. Hollings
Chairman
Committee on Commerce, Science and
Transportation
425 Hart Senate Office Building
Washington, D.C. 20510

RE: REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT

Dear Mr. Chairman:

The American Association of Zoological Parks and Aquariums (AAZPA) is interested in the reauthorization of the Marine Mammal Protection Act. We request that the Committee consider expansion of the Act so that permits may be issued for the taking and importation of marine mammals for purposes of scientific research and enhancing the propagation or survival of the affected species or population stocks.

AAZPA is the largest professional zoological park and aquarium organization in the world. AAZPA represents virtually every major zoological park, aquarium, wildlife park and oceanarium on the North American continent and the vast majority of the professional staff members employed therein. AAZPA also represents and is the official spokesman for nearly 300,000 members of various zoological park and aquarium support organizations that offer assistance to zoological facilities in their communities. Collectively zoos and aquariums in this country annually play host to more than 100,000,000 visitors.

Permits may be issued under the Marine Mammal Protection Act for scientific research and public display purposes. In the case of a depleted marine mammal, permits may be issued only for scientific research purposes. The Act defines a depleted species as a species listed as an endangered or threatened species under the Endangered Species Act or otherwise determined by the Secretary of Interior or Commerce to be below its optimum sustainable yield.

Authority to issue permits for purposes of enhancing the propagation or survival of the affected marine mammal species or population stocks exists under the Endangered Species Act. However, that authority cannot be applied to marine mammals because the ESA specifies that the more restrictive provisions of the MMPA apply.

The following species of marine mammals are among those listed as depleted: southern sea otters, manatees, dugongs, and monk seals. Northern sea lions and fur seals will probably be listed as depleted before the end of 1988. Most of these species are rarely maintained in captivity. Thus zoological institutions and aquariums have not developed the experience or, in some cases, the expertise in management techniques in captive propagation. However zoological institutions and aquariums have achieved considerable success in captive propagation of related marine mammals. This indicates that management techniques are available and could be adapted to these similar species.

AAZPA believes that the current language relative to take of depleted species for only scientific research is too restrictive. We recommend that the overall goals of the Marine Mammal Protection Act would be better achieved if the Act were amended to allow zoological institutions with the appropriate facilities to act as sanctuaries for those listed species with the goal of establishing a captive population that could ultimately supplement wild populations in the future.

Numerous studies indicate that the appropriate time to establish self-sustaining populations is when populations have sufficient members to allow for such activities. Restricting captive endeavors until stocks are further depleted could lead to a species disaster. Marine mammal experts within the zoological and aquarium community need to be encouraged to begin appropriate studies.

The following is proposed language to amend the MMPA:

> Section 101(a)(1) of the MMPA: "Permits may be issued by the Secretary for taking and importation for purposes of scientific, research, to enhance the propagation or survival of the affected species or population stock, and for public display if ..."
>
> Section 101(a)(3)(B) of the MMPA: "Except for scientific research purposes and to enhance the propagation or survival of the affected species or population stock as provided for in paragraph (1) of this subsection, during the moratorium no permit may be issued for the taking of any marine mammal which has been designated by the Secretary as depleted, and no importation may be made of any such mammal.
>
> Section 102(b) of the MMPA: "Except pursuant to a permit for scientific research or to enhance the propagation or survival of the affected species or population stock issued under section 104(c) of this title, it is unlawful to import into the United States any marine mammal if such mammal was ..."

> Section 104(c) of the MMPA: "Any permit issued by the Secretary which authorizes the taking or importation of a marine mammal for purposes of display, to enhance the propagation or survival of the affected species or population stock, or scientific research, shall specify, in addition to the conditions required by subsection (b) of this section, the methods of capture, supervision, care and transportation which must be observed pursuant to and after such taking or importation. Any person authorized to take or import a marine mammal for purposes of display, to enhance the propagation or survival of the affected species or population stock, or scientific research shall furnish the Secretary a report on all activities carried out by him pursuant to that authority."

We thank you for the opportunity to submit these comments and look forward to working with you and your staff on this issue. If you need further information, please contact Kris Vehrs at 429-0949.

Sincerely,

Edward C. Schmitt
Edward C. Schmitt
Chairman
Legislation Committee

Kristy L. Vehrs
Kristin L. Vehrs
Legislative Representative

STEVE COWPER
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

May 18, 1988

The Honorable Ernest F. Hollings
Chairman
Committee on Commerce, Science and
Transportation
SD-508 Dirksen Senate Office Building
Washington, DC 20510

Dear Mr. Chairman:

I am writing to present the views of the State of Alaska regarding reauthorization of the Marine Mammal Protection Act. The conservation and management of marine mammals has been and remains an issue of significant interest to the State of Alaska and its residents. The waters off Alaska's coasts contain an unrivaled diversity and abundance of whales, dolphins, walruses, seals, sea lions, sea otters, and polar bears. These mammals constitute an international resource of great importance to the nation, and to the residents of Alaska in particular. Alaskans relate to these animals in a variety of esthetic, cultural, and physical ways, and changes in marine mammal populations or their management have direct and significant consequences for Alaskans.

Alaska's Role in Marine Mammal Management

Before Congress passed the Marine Mammal Protection Act (MMPA) in 1972, the State of Alaska had management programs for 10 species of marine mammals including walrus, sea otter, polar bear, belukha whale, Steller sea lion, and ringed, ribbon, bearded, spotted and harbor seals. Those programs included population enhancement, habitat protection, monitoring and assessment, and controlled utilization based on sustained yield. Many of the state's programs ended with passage of the MMPA. In 1973, Alaska applied for return of management authority for the 10 species as provided for in Section 109 of the MMPA. After an unsatisfactory period from 1976-79 of managing walruses under Section 109 provisions, Alaska sought remedial changes to the MMPA which were accomplished by amendments made in 1981.

Since the 1981 amendments, Alaska has twice reconsidered its role in marine mammal management. After holding an extensive series of public meetings in 1984-85, the state administration concluded that, while state management of all 10 species would be beneficial and appropriate, limited resources precluded applying for return of management authority. In 1987, Alaska Department of Fish and Game (ADF&G) staff recommended that, due to changes in the status of certain populations and the lack of current data on others, further consideration for resumption of state management should be given only to polar bears, walruses, and sea otters. Meetings were held to discuss this idea and to explore various options for marine mammal management in Alaska.

The concerns and opinions expressed by Alaskans at these meetings identified an array of issues relating to marine mammal conservation and management. Major concerns related to the importance of these animals to Alaskans, the health of mammal populations, habitat protection and the need for ecosystem-based management, allocation of consumptive uses, technical aspects of state regulatory processes and MMPA provisions, research and monitoring requirements, enforcement capabilities, sources of program funding, and others. It was evident that these concerns related not only to polar bears, walruses, and sea otters, but to all species that occur off Alaska and interact with its residents and other resources.

During the course of these meetings, it was apparent that Alaskans recognize the need for protection and management of marine mammals. Alaskans also expressed a strong sense that they want to participate in management decisions, but that they are not entirely satisfied with the status quo or prospective state management as would be allowed by Section 109 of the MMPA. Due to administrative and legal constraints, funding problems, public concerns, and other factors, the state decided not to apply for return of management for any species at this time.

The state considers the need to establish a system that will foster the development and implementation of management programs to be of paramount importance. It is inappropriate that no comprehensive management plans have been developed in the 15 years since implementation of the MMPA. Recent population changes such as have occurred for Pribilof fur seals and Steller sea lions amply demonstrate that the protective, minimal management philosophy contained in the MMPA, which are otherwise affected by other uses of the ocean's resources, does not guarantee healthy, stable population levels in all cases. While management programs should be developed for all species, the need for active management is especially acute for those species that interact most significantly with humans. Recognizing the need for management-planning, user groups in Alaska have already made significant progress in development of plans for polar bears and walruses. These efforts provide an excellent starting point as our proposed program gets underway.

The Alaska Department of Fish and Game has developed recommendations for a process that would allow cooperative management planning with formal involvement of federal agencies, ADF&G, user groups, conservationists and other interested parties. This cooperative planning approach has also been given tentative approval by Alaska Native organizations and some conservation groups.

Such a cooperative approach to development and implementation of management programs has been highly successful for species such as caribou and belukha whales in northern Canada, and has allowed significant progress in rehabilitation of waterfowl populations on the Yukon-Kuskokwim Delta in Alaska. The objective in this case is to combine the efforts of federal agencies, which have the responsibility for management of marine mammals under the Act, with the interest and expertise in marine mammals possessed by the State of Alaska, and the needs and desires of potentially affected interest groups. It is especially important that Alaska Natives who continue to use marine mammals for subsistence and the manufacture of handicrafts, are involved in a formal and functional way throughout the process.

The process that ADF&G has recommended involves a continuation of federal management under existing provisions of the MMPA. Comprehensive management plans would be prepared jointly by the appropriate federal agency, the state, user groups, and other interested parties. When fully developed and agreed upon, management plans would be submitted to the appropriate secretary (Interior or Commerce) for approval and implementation through either federal procedures or cooperative agreements. While this process does not now require changes to the MMPA, we request that the Congress support these efforts through the active participation of the federal agencies in the cooperative management planning process, and that adequate funding be made available for management programs and the research and monitoring required in support of them. The State of Alaska is committed to maintaining a marine mammal staff to work on management plans, establishing and funding the operation of a marine mammal advisory committee composed of interested citizens, and providing administrative and logistical assistance. If the federal agencies commit to participation in this process, the state will explore the possibility of establishing a marine mammal advisory committee in fall 1988.

Marine Mammal/Fisheries Interactions

One of Alaska's principal concerns at this time involves the interactions between marine mammals and fisheries. Many of the millions of marine mammals that live off Alaska feed on fish and shellfish that inhabit areas where commercial fisheries are operating. To some extent, during prosecution of these fisheries, marine mammals are taken. In the cases where the marine mammals species is determined to be depleted, there are no provisions in the MMPA to allow for this incidental take. These fisheries constitute some of the most important economic opportunities available to the State of Alaska. Shutting them down would create severe economic dislocation. Interested groups have developed a proposal to address these problems. We are in the process of reviewing the product of these efforts, and will work with the interested parties and this committee in reaching a workable solution to the issue.

Research

There is a need for Congress to provide substantial funding for marine mammal research and management programs. Research on marine mammals is difficult and costly. However, many new techniques (e.g., satellite telemetry and genetic fingerprinting) have recently been developed and could be applied in order to answer some of the most pressing questions. In the absence of sound scientific data, questions relating to marine mammal conservation are answered by the courts. We believe that significant decisions regarding management of important resources should be based on biological considerations. Funding levels must be sufficient to ensure that research is not only directed toward endangered or "high-profile" species, but also addresses significant issues relating to populations that are abundant or of lower public interest. Lack of data resulting from lack of funds has hampered the nation's efforts on marine mammal conservation and management. The marine mammals of Alaska are a great treasure, not only to Alaska, but to the nation and to the world. We must conserve and manage them wisely.

Thank you for the opportunity to provide this testimony to the Committee.

Sincerely,

John W. Katz

for Steve Cowper
Governor

Americans for Marine Eco-Balance

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May 10, 1988

Senator Ernest F. Hollings, Chairman, and
Members of the Senate Committee on Commerce, Science & Transportation

Americans for Marine Eco-Balance appreciate this opportunity to present our concerns on the occasion of the reauthorization of the Marine Mammal Protection Act. AME is a non-profit coalition of recreational, subsistence and commercial fishing organizations and individuals dedicated to conservation of all marine resources, who agree on the need for management of marine mammals in balance with other interacting marine resources, or in other words, ecosystem management--Eco-Balance.

Among those united under AME's banner are major sportfishing groups: Trout Unlimited is a worldwide organization with a national membership exceeding 50,000 and an international membership of over 30,000. Sportfishing Association of California represents hundreds of commercial passenger fishing vessels, a multi-million dollar industry. Northwest Steelheaders is another large sportfishing association, representing thousands of anglers in the Pacific Northwest. A Northwest Indian fisheries representative sits on AME's Board of Directors, along with the director of the Oregon Coastal Zone Management Association. Prominent commercial fishing organizations from Alaska to California--trollers, trawlers, gillnetters, seiners--play a leadership role in AME. Among these groups are the California Gillnetters, Pacific Coast Federation of Fishermen, Fishing Vessel Owners, American High Seas Fisheries and American Tunaboat Associations.

AME president, Henry Mitchell, is the director of the Bering Sea Fishermen's Association, representing Alaska Native subsistence and commercial fishermen. AME represents 20 such groups, along with individuals from Alaska to California, Connecticut and Massachusetts, and our membership is growing weekly. This diverse assemblage joined forces for one primary reason: We see marine mammal conflicts with fisheries increasing, and we believe the time has come for reasoned marine mammal management.

In 1972, Congress passed the Marine Mammal Protection Act in response to a flood of environmental concern. Marine mammals deserved protection, and in the intervening 16 years, a majority of stocks have recovered from exploitation and are thriving. Symbolic of this progress, in 1972 the incidental catch of porpoise in tuna seining was among key issues driving the passage of the MMPA. Today, thanks to research and industry effort, over 99 percent of all porpoise captured by the US tuna fleet are release alive. Overall, of 117 marine mammal species, only 16 are listed under the Endangered Species Act. One is the California gray whale--but although still listed "endangered," gray whales have reached historic population levels.

Certainly the MMPA was a well-intentioned act; it heightened environmental awareness and extended near total protection to marine mammals at a critical time. Now, however, with marine mammal populations still unregulated and many increasing, it has become, in reality, unworkable.

•The MMPA seeks to restore all marine mammal populations to pristine levels without considering the sum of their impact on each other, on other interacting resources, or on today's ecosystem.

•The MMPA is interpreted as a rigidly protectionist act, and it fails to recognize that individual marine mammal species have vastly different characteristics, needs and conflicts.

•Marine mammal vs. fishery conflicts are increasing--to a degree that eliminates fisheries--yet the MMPA does not address competition for resources. Resource managers have no authority under the MMPA to effectively resolve these conflicts.

•The MMPA is ambiguous in its definition of critical terms, leaving legal definition to be set in court.

•The MMPA does not allow ecosystem management, although its primary goal is "...to maintain the health and stability of the marine ecosystem."

Addressing the 95th Congress in 1978, John Harville, then Executive Director of the Pacific Marine Fisheries Commission, testified: "The (PMFC) over a four-year period has called for reexamination of the Marine Mammal Protection Act to bring it in line with the FCMA (Fisheries Conservation and Management Act). We feel it simply is not rational to try to manage our ocean resources on an ecosystem concept but have the top predators (marine mammals) immune from management." His statement is even more valid today. Commerce Department agencies such as NOAA and NMFS now espouse ecosystem management but are paralyzed by law, while marine mammal vs. fishery conflicts continue increasing.

•Colonies of seals and sea lions hundreds of animals strong now congregate in estuaries during spawning runs of salmon and steelhead. They have been observed gorging on returning fish, while fishermen, who also have seen seals over 100 miles upriver, no longer can catch fish in many river systems. At the Ballard locks in Seattle, a small band of California sea lions nicknamed "Herschel" has largely depleted the returning steelhead run. Under the MMPA, resource managers have no authority to protect a balance of other resources at risk from marine mammal predation.

•In northern Puget Sound, research indicates that a dramatic increase in sea lions has decimated the hake resource, precipitating the collapse of a commercial fishery in the area. This one regional impact is symbolic of a far broader resource conflict--and management conflict--as mammal numbers grow.

•In Alaska and California, sea otters have eliminated or greatly reduced shellfisheries for crab, clams, abalone, sea urchins and other species. And sea otter populations continue to expand.

•In salmon, rockfish, halibut and other fisheries, seals have learned to steal fish off hooks and out of nets. Killer whales have learned to strip blackcod off longline gear, at times removing over 50 percent of the catch. In California's inshore gillnet fishery, seals and sea lions take an estimated 15-25 percent of the catch.

•And marine mammals also become accidentally entangled in fishing nets. If the species is officially classified as "depleted," or if Optimum Sustainable Population (OSP) is unknown, incidental taking is illegal. This MMPA ruling has severely restricted fisheries in California, and stands to shut down major industry in the North Pacific. In fact, with the reissuance of general permits now uncertain, MMPA policy could curtail much of the national commercial fishing industry.

Under the MMPA, "taking" of non-depleted marine mammals in domestic commercial fisheries is authorized under general permit and certificates of inclusion if the take does not disadvantage the population. In the past, agencies have issued general permits with the understanding that the stock in question was healthy, expanding, and the take had negligible impact on its growth. However, courts have ruled that in order to know the impact of the take on the species' Optimum Sustainable Population, as stated in the law, the authorizing agency must, in fact, know the OSP. No OSP--no permit, regardless of the current health of the stock

This opinion was recently affirmed in the US Court of Appeals for the District of Columbia against the Federation of Japan Salmon Fisheries Cooperative in the "Dall's porpoise case." The message it carries for domestic commercial fisheries is painfully clear, for the National Marine Fisheries Service has declared that information is insufficient to determine OSP for four primary west coast species--California sea lion, harbor seal, elephant seal, and harbor porpoise--this despite the fact that the first three populations are acknowledged to be healthy and expanding--indeed, California sea lions now number about 85,000 (plus about 80,000 in Mexico) and are expanding at about 5 percent per year These four species interact with virtually every major fishery on the west coast. No OSP--no general permit renewal? NMFS is now preparing for an Environmental Impact Statement on the subject, and according to one official, under current law "...the EIS would have to say that the preferred alternative is 'no permits'..."

A different, yet related, problem besets the fishing industry in Alaska. For reasons as yet unknown, northern fur seal and Stellar (northern) sea lion populations are declining. The decline parallels that of some species of marine birds; food chains shifted composition; water temperature warmed--perhaps all indicative of a mezoscale change in the ecosystem. Even so, fur seals are being listed as "depleted," with northern sea lions soon to follow. Stellar sea lions, in particular, interact with major domestic fisheries--following boats, stripping fish, shredding nets in salmon fisheries, and becoming entangled in trawl gear. The incidental take in Alaskan groundfish trawl fisheries is estimated at fewer than 500 animals per year from a population estimated in 1985 to number 68,000 in the Gulf of Alaska and Aleutians. (Northern sea lions range from the Okhotsk Sea in Russia to California.)

The North Pacific groundfish trawl industry produced nearly 3 billion pounds of food in 1986--representing over 500,000 man-days of work (25,000 full-time jobs). The aggregate of groundfish trawl fisheries generated about $510 million dollars in personal income. Ironically, this is the same industry that the United States government spent many millions of dollars to develop under the Magnuson Act--an industry that in the last few years has become "Americanized." No incidental take of depleted species--no permit--no fishing?

Clearly, the domestic fishing industry is at risk after 1988 general permits expire. There is a need for domestic industry to continue fishing in the presence of "depleted"marine mammals, as well as those whose OSP is unknown. There is a need for a process that would allow commerce to continue, particularly if it can be shown that fishing has a negligible impact on marine mammal populations. There is a need for a permit system written into law that provides for the continuity of domestic industry. There is a need, finally, for a change in the MMPA.

As defined in our Overview, Americans for Marine Eco-Balance support MMPA amendments developed by scientific committee convened by the Pacific Marine Fisheries Commission. AME recommends:

1) Amend the MMPA to provide resource agencies with the authority to lethally remove nuisance animals when conservation of other resources is at risk.

This provision would give agencies the authority to deal with problems like "Herschel," in instances where marine mammal predation in proximity to state or federal facilities threatens to deplete other natural resources.

2) Amend the MMPA to provide marine mammals with the same balanced system of protection as accorded all other wildlife populations.

Other resource conservation acts allow for balanced management of resources, providing more flexibility in permitting conflicting operations to continue. MMPA policy now lacks this flexibility.

3) Authorize state and federal agencies to develop cooperative marine mammal conservation programs encompassing all interacting resources and authorizing the management of all marine mammal species in conjunction with other resources through comprehensive ecosystem management plans.

Currently, federal agencies have authority over marine mammals but, with tight budgets and higher budget priorities, fail to accomplish necessary research. One result: "OSP" remains unknown. Lacking management authority, coastal states cannot fund needed marine mammal/fisheries interactions programs. This amendment would authorize state and federal agencies to cooperatively implement comprehensive ecosystem management plans encompassing both marine mammals and fisheries, including a permit program for incidental take of all species, including those classified "depleted."

4) Request Congress to allocate to the agencies sufficient funding to enable affected states to participate actively in state/federal programs to monitor marine mammal populations and their interactions with other resources and human activities.

In addition to legislative recommendations, AME questions the current methodology to assess and define marine mammal population status. At present, agencies unilaterally determine (or fail to determine) OSP based on singular research technique that is not subjected to formal peer review. Because such determinations control the continuity and future of the fishing industry, AME recommends that a standing committee be convened to review and approve such determinations prior to their announcement in the Federal Register. This review panel should encompass, in addition to a representative from the Marine Mammal Commission, scientific representatives from the environmental community, fishing industry and state.

Following President Henry Mitchell's appeal to "join arms and pursue remedies" to MMPA / fisheries conflicts, AME initiated a series of meetings between the fishing industry and key national environmental groups. Four subgroups were formed to discuss the following issues: Determinations process; lethal take of nuisance animals; incidental take of depleted species; and funding for expansion of cooperative state/federal research and management programs. After several meetings reviewing concerns, we have begun negotiations in an attempt to develop consensus platforms on these issues.

We very much appreciate your attention to our concerns, as we appreciate your consideration and support at the time we approach Congress with a compromise MMPA amendment package. Thank you, once again, for this opportunity to present our views before the Senate Committee on Commerce,Science and Transportation.

Sincerely,

DIANE PLESCHNER

Diane Pleschner
Secretary

S.O.S.

The Honorable Ernest Hollings
Chairman
Committee on Commerce, Science
and transportation
U.S. Senate
Washington D.C. 20510

May 27, 1988

Re: Statement of Save Our Shellfish (S.O.S.) on the reauthorization of the Marine Mammal Protection Act (MMPA).

Dear Mr. Hollings,

S.O.S. respectfully submits the following comments on the 1988 MMPA reauthorization.

As divers and diving fishermen, we regularly enter the marine environment to view the various components of a complex world on a firsthand basis. The ocean is not a foreign or forbiding place—we're comfortable—we see mankind as a natural component of the marine ecosystem. For this reason, our views of the sea are somewhat different.

In comparison to some marine mammals, the sea otter for example, some divers see themselves as a human equivalent. Many human divers hold their breath, as marine mammals do, and seek many of the same species as a food source. It's not uncommon to find sport divers with thousands of hours of underwater experience. Some sport and commercial divers have 5000 hours underwater—some as many as 20,000 hours. These divers are unique among humankind. Scientists have recently demonstated that some humans have a "diving reflex", an ability to restrict blood flow to the extremities—the same reflex marine mammals use.

We point out these facts because we feel our underwater experience gives us an advantage over other commentors. We often meet those from the environmental community, people dedicated to wildlife preservation, including marine mammals, who have little or no underwater experience. We have also met researchers on government grants and marine mammal project leaders who do not dive. We find this puzzling to say the least. We suspect that these differing levels of underwater experience are one source of polarization over marine mammal issues.

Another advantage that S.O.S. has is our willingness to work with state and federal government agencies to not only define problems, but, seek solutions. Our experience is broad. We've worked as technical review team members with U.S. Fish and Wildlife Service (FWS) on the sea otter translocation mapping study. We co-founded an alternative fishing gear project for gill-net fishermen affected by State of California legislation designed to protect sea otters.

In 1984 and 1985, S.O.S. was selected by commercial and recreational shellfish fishermen to present oral testimony before the subcommittee's reauthorization of the MMPA and Endangered Species Act (ESA) respecively. S.O.S. also presented testimony to the U.S. Senate in 1985.

SAVE OUR SHELLFISH

P.O. BOX 263, LITTLE RIVER, CA 95456 (707) 937-2211

Our task today is to relay our views and concerns for the ocean to those who have not shared our experience. We are "inner-space" pioneers. Freelance inner-space astronauts without a NASA budget. If we fail this year, our comments provide a record for future marine investigators. We hope it will help expand the thinking of those who read this.

Our basic concern is for the floral and faunal planktonic life of the worlds oceans—the living soup. As divers we see this life swirling before our facemasks. Fishermen rely on the individual survivors of various species of invertebrates and vertebrates who make it to adulthood. So do marine mammals. In 1988, fishermen, marine mammals and marine birds must compete for resources heavily affected by pollution and loss of habitat. As divers, we often view the pristine and the polluted areas.

It's a tremendous experience to view plankton and juveniles—an entire food web before ones eyes. It's depressing to view sick and injured bottom. Fishermen and wildlife must adjust to loss of resource and habitat.

Because of our firsthand observations, we recognize that there are limits to marine resources. Life does not exist everywhere just because there are rocky habitats. The sea is dynamic. Good habitat is limited.

California shellfish fishermen are highly regulated. We must follow laws designed to promote conservation of valuable marine resources. We are limited by size, bag limits, area closures, seasons, and harvest tools.

On the other hand, marine mammals do not have these limits. They take all sexes, all seasons, all sizes of fish and shellfish. We recognize that high populations of marine mammals must be furnished with vast quantities of food. In some areas of California, hundreds of miles of once productive fishing grounds have been given to marine mammals to provide for their survival. One example is the sea otter, Enhydra lutris l. which exists along the south-central coast. Abalone landings along this stretch of rugged coast once averaged over 2.million lbs. per year for over 50 years. Our Dungeness crab and sea urchin fishery and several clam fisheries have been lost to sea otters.

Pinnipeds also consume vast quantities of fish. Recent assessments on the consumption rates of four common pinnipeds in California, California sea lions, Zalophus californianus; harbor seals, Phoca vitulina; northern fur seals, Callorhinus ursinus; and northern elephant seals, Mirounga angustirostris are consuming an estimated 951,000 metric tons of fish per year or 2605.47 metric tons per day (5,745,082 lbs. per day). This amount of fish is almost five times the quantity of fish landed by all commercial fishermen in California.

PERILS OF SUCCESS

Much of the discussion related to this years reauthorization appears to center on the depleted species—the downside of recovery. We would like to point out that there is also an upside. The information we have indicates that of 116 recognized marine mammal species, only 18 are currently listed as threatened or endangered under the ESA.

It would therefore seem that the protection afforded marine mammals over the past 50 years (some since the 1911 International Fur Treaty) and more recently, the MMPA has succeeded. Some whales, like the California grey, Eschrichtius gibbosus, are candidates for de-listing.

As Charles F. Cooper and Brent S. Stewart stated in their paper, *The Perils of Success: Implications of increasing Marine Mammal Populations in the Southern California Bight*, delivered to the Ocean Studies Symposium, Asilomar California, November 7-10, 1982:

> " A half century of successful protection and conservation has allowed several species of marine mammals in the Southern California Bight to increase their populations exponentially. Northern elephant seals are increasing about 14% per year; California sea lions, northern fur seals, and harbor seals somewhat less. Steller sea lion numbers have declined for unknown reasons. Sea otters and Guadalupe fur seals are incipient colonizers. Whale abundance is also increasing, but their population status is poorly known. The increasing marine mammal populations, hearting as they are, will bring inevitable changes and conflicts. These include shifts in ecosystem structure and relative species abundance, impacts on commercial and sport fisheries, favorable and unfavorable interactions with tourism and recreation, disturbance of animals by military operations, and interactions with oil development and commercial shipping".
>
> " Our principal conclusion is that rapid increase of pinniped abundance is likely to alter the marine ecosystem significantly, including its human component. Managers and policymakers have tended to regard living marine resources as independent discrete populations, not as components of an ecosystem governed by complex interactions. This is no longer sufficient in a changing society with increasing demands on resources of all kinds".

The MMPA sets forth a national policy designed to protect and encourage the development of marine mammals to optimum sustainable population (OSP) levels consistent with the maintenence of the health and stability of the marine ecosystem. It is generally stated that marine mammals will not upset the natural balance.

In regards to sea otters and some shellfish, this may not be the case.

One species of abalone, *Haliotis assimilis* (aka *H.kamtschatkana assimilis*), probably the rarest of the eight species of abalone found in California, appears to have been depleted by foraging sea otters in recent years. The range of H. assimilis overlaps the southern end of the sea otter range. Commercial landings of H. assimilis average less than three lbs. per year. S.O.S. supports a moratorium on the harvest of H. assimilis.

S.O.S. has raised concern for the status of H. assimilis. We believe it to be a threatened or endangered species. So far, we have had little positive reaction from the state or federal agencies we've contacted. The conservation/environmental community has demonstrated little concern. It appears there is little concern for endangered marine invertebrates. S.O.S. is preparing a biological assessment to be forwarded to the Secretary of Commerce.

Kenyon (1969) found that large populations of sea otters could seriously deplete food resources within their home range. Evidence is available that this does in fact occur.

McLean (1962) presents convincing evidence that the red sea urchin, Strongylocentrotus franciscanus has been nearly exterminated in a particular area on the California coast which is occupied by a considerable number of sea otters.

Wild (1974) found that in newly colonized areas where abalones were abundant, 100 sea otters could consume 0.5 to 1.0 million lbs of abalone (whole weight) in one year.

Wendell(1986)assumed consumption rates of Pismo clams (80clams/otter/day) to illustrate the impact sea otters had on Pismo clam resources in the Pismo Beach area of California. Two conclusions were drawn from these data which have direct bearing on the debate concerning sea otter/shellfish fishery relationships. Firstly, sea otter foraging, rather than human impact from legal harvest, illegal harvest, pollution, and/or vehicle traffic on beaches, have resulted in the loss of Pismo clam fisheries within the sea otter range. Secondly, once sea otters are established along clam bearing beach areas, any future harvestable stocks of clams will be fully utilized by sea otters, preventing the return of a fishery.

We expect that as other marine mammal populations expand, primarily sea lion and seals, other living marine resources will be affected simular to current affects on steelhead, Salmo gairdnerii spp. in other Pacific states. Some of these recent impacts on Salmonidae appear to be learned behaviors. Salmon trollers are reporting difficulting in some areas where sea lions have learned to follow boats and take fish from troll lines. Sport fishermen report the same sort of problems. Sea lions, foraging at the mouths of some rivers may be having a negative affect on fish returning to spawn.

Again, we are concerned for what we see as an emphasis on the top predators and a potential for neglect of the lower echelons—the plankton and juveniles. We see a need for continued research into trophic levels of take by marine mammals, especially pinnipeds.

From their 1941 book, The Sea of Cortez, John Steinbeck and E.F. (Doc) Ricketts wrote:

> " The disappearance of plankton, although the components are microscopic, would probably in a short time eliminate every living thing in the sea and change the whole of man's life, if it did not though a seismic disturbance of balance eliminate all life on the globe. For these little animals, in their incalcuable numbers, are probably the base food supply of the world. But the extinction of one of the rare animals, so avidly sought and caught and named, would probably go unnoticed in the cellular world".

The recent sea otter translocation to San Nicolas Island, Ventura County, California seems to be the grossest example of concerns expressed by Steinbeck and Ricketts. Without regard for the richness of invertebrate fauna represented at San Nicolas Island or its value as a pristine spawning ground, FWS recently translocated a population of sea otters in the hopes of developing a breeding colony. Substantial evidence exists that the sea otter in California is no more than a slightly isolated population, in healthy condition, from a greater healthy population which extends into Alaska. FWS chose to sacrifice the breeding stock of lobster, abalone, and sea urchin without an understanding of the potential consequence. FWS research indicates impacts on shellfish fisheries at San Nicolas Island by foraging sea otters will cause collapse within five years. We agree with this assessment as it appears supported by research mentioned above.

COMPROMISE

While we recognize the need for compromise on the complex legal issues associated with this years MMPA reauthorization, we are concerned that even more complex biological issues may get lost in the shuffle.

We are concerned for the costs associated with the proposed observer program. Will the estimated $ 2.5 million budget be taken in part or totally from existing research programs ? How will onboard observers be insured ? Will the requirement for data collecting make criminals out of those fishermen who fail to comply ? Will these traditional small boat fishermen (the last significant hunter/gatherers in our society)understand the requirements being imposed on them in such a short period of time ? Are goals of the compromise so broad as to overlook regional differences and varying problems ? Does the proposed compromise only add an additional layer of bureaucracy to what may actually be a problem of perception ?

S.O.S. would like to support amendments to the MMPA that would allow for the take of marine mammals in commercial and recreational fishing operations as long as the taking is part of an overall strategy designed to recover depleted species. We suggest a more enlightened view of these animals which would consider the viability of the population and not necessarily the nebulous goals of OSP.

If the U.S. is to maintain its commercial fishing fleets, the MMPA, ESA, and goals of the Magnuson Fishery Conservation and Management Act must be amended for consistency.

Thank you for you consideration.

Respectfully submitted,

-S-

Steven L. Rebuck

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Morro Bay Commercial Fishermans Organization Inc.

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The Honorable Ernest Hollings
Chairman
Committee on Commerce, Science and Transportation
U.S. Senate
Washington D.C. 20510

May 30, 1988

Dear Senator Hollings,

The Board of Directors and members of the Morro Bay Commercial Fishermans Organization is pleased to comment on this years reauthorization of the Marine Mammal Protection Act (MMPA). We would appreciate it if you would include our comments in the record.

We begin our comments with a brief description of the fisheries at Morro Bay—past and present—followed by an assessment of marine mammal/fisheries conflicts.

Morro Bay is situated approximately halfway between San Francisco and Los Angeles. It is the only safe harbor between Monterey and Santa Barbara. Morro Bay currently harbors 181 commercial fishing vessels, 147 of which are considered active. We also harbor a transient fleet from up and down the Pacific coast. Yearly fish landings average approximately 10. million lbs. with an estimated ex-vessel value of over $ 6.2 million. Much of this product is utilized locally at fresh market or restaurants.

Morro Bay's fisheries have been heavily impacted by marine mammals for over 30 years. With the recovery of several marine mammal populations has come innumberable conflicts, affecting one fleet after another. Of greatest concern are interactions with California sea lions, Zalophus californianus; harbor seals, Phoca vitulina; and sea otters, Enhydra lutris l.

Historically, Morro Bay was once known as the "Abalone Capitol of the World". Abalone harvested from the region and landed primarily at Morro Bay averaged 2. million lbs. per year between 1916 and the mid-1960's. As the sea otter has gained population and expanded range, abalone landings deminished to the point of total commercial collapse by the late 1970's. Two decades ago, there were 50 abalone fishing boats in the Morro Bay fleet. This fleet employed hundreds of local people. No more. The only active abalone divers from our community must earn their living by fishing 150 miles away, either north or south, outside the sea otter range.

This same downward trend in available resource due to sea otter foraging has affected the red sea urchin harvest. This unique fishey originated in California just a few miles south of Morro Bay in 1972. Like abalone, the sea urchin fishery now only exists outside the otter range (approximately Ano Nuevo on the north and Santa Maria River on the south).

The red sea urchin, Strongylocentrotus franciscanus, has become one of our state's largest and most valuable export fisheries. Most of the processed roe is exported to Japan. Landings for 1986 were 34. million lbs. worth $ 9.7 million ex-vessel. None of this was landed in our region.

Sea otters have also precluded our local Dungeness crab fishery apparently by foraging on female crabs as they enter shallow water sandy beach areas to lay eggs.

Our local gill-net fishery, targeting halibut, has been forced by state legislation, designed to protect sea otters from entanglement, to fish in water too deep for a viable fishery.

Recreational fisheries have been affected likewise—abalone, clam and crab fishing is only a minor remnants today.

In regard to sea lions and seals, depredation on troll caught salmon, trawl nets, set-nets, traps and longlines has escalated as pinniped populations have increased. It's not unusual for raiding sea lions and seals to take 15% to 25% of a fisherman's catch. On some occasions, depredation may affect 90% of the catch—leaving only skeletal remains. Sometimes only the bellies are eaten out of our hooked salmon. It's often a race to land a fish before a sea lion takes a bite out of it. Partially eaten fish are generally considered unmarketable. The same situation affects sportsmen.

Over the decades, our fishermen have shifted from fishery to fishery, in a futile attempt to adjust to marine mammal conflicts. However, in this age of limited entry, this has become virtually impossible.

Our organization has a good track record in regards to cooperative efforts with various government agencies attempting to identify solutions to marine mammal/fishery interactions. These efforts have included investigations into alternative gear and improved practices for our gillnetters. In recent years our officers, directors and members have worked with the California Dept. of Fish and Game, National Marine Fisheries Service, U.S. Fish and Wildlife Service, Marine Mammal Commission and Sea Grant. We expect to continue this effort in the future.

Unfortunately, these efforts have been frustrated by those who stress the letter of the law in regard to the taking of depleted species. Because of this prohibition, reasonable alternative gear experiments have remained untried. Months of workshops, studies and data collected by the above mentioned agencies has been of little use because of threats of law suit. It has been difficult for the State of California to authorize experimental gear permits even when the gear to be tested is designed to reduce take of marine mammals, especially where depleted species are involved.

Therefore, we lend our support to those amendments to the MMPA which would allow for the take of depleted species and/or "de-facto" depleted species, as long as such take is part of a management program designed to promote the recovery and maintenance of the stocks involved. We also recommend a more enlightened view of optimum sustainable population (OSP) to consider the viablity of a population. Viability seems a more important goal than the nebulous objective of OSP.

Thank you for your consideration.

Respectfully,

V.P
For.
Fred Sears, President

International Association of Fish and Wildlife Agencies
(Organized July 2, 1902)
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Jack H. Berryman, Executive Vice President

STATEMENT OF THE INTERNATIONAL ASSOCIATION OF FISH AND WILDLIFE AGENCIES CONCERNING REAUTHORIZATION OF THE MARINE MAMMAL PROTECTION ACT FOR THE SENATE SUBCOMMITTEE ON NATIONAL OCEANS POLICY STUDY

MAY 19, 1988
by
Gordon C. Robertson, Legislative Counsel

The International Association of Fish and Wildlife Agencies, founded in 1902, is a quasi-governmental organization of public agencies charged with the protection and management of North America's fish and wildlife resources. The Association's governmental members include the fish and wildlife agencies of the states, provinces and federal governments of the U.S., Canada, and Mexico. All 50 states are members. The Association has been a key organization in the promotion of the principles of sound resource management and the strengthening of federal, state and private cooperation in protecting and managing fish and wildlife and their habitats in the public interest.

The development of the Marine Mammal Protection Act (MMPA) in 1972 represents a significant step ever by the U.S. Congress to recognize an important wildlife resource and provide for its long-term conservation. The MMPA has resulted in a number of important successes in marine mammal protection. Populations of species such as California sea lions, northern elephant seals, and harbor seals have increased greatly. As much as the Association acknowledges the importance of marine mammal conservation, the Association is also aware of resource conflict that currently cannot be adequately addressed under the MMPA. The MMPA does not provide for integrated management of marine mammals with other living resources in the marine environment, and with man.

The Pacific Marine Fisheries Commission (PMFC), an affiliate member of IAFWA, prepared for this year's reauthorization by examining the issue of marine mammals/fishery interactions and proposing modifications to MMPA that would result in a more integrated and rational approach to the management of marine mammals, marine fishes and fisheries. (See Report on Proposed Amendments to the Marine Mammal Protection Act, PMFC, December 1, 1987.) The PMFC report identified the need for (a) governmental authority to lethally take nuisance animals at government facilities even when the animals are "depleted"[1]; (b) the take of "depleted" mammals by commercial fishermen; (c) reinvolvement by coastal states in mammal management via cooperative state/federal programs; and

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[1] Under the Act "depleted" by no means necessarily suggests the population is actually threatened and, in fact, a population whose status is unknown is treated as if it is depleted.

(d) funding for research and management. The intent of these recommendations is to build on earlier amendments (such as the 1981 recognition of the need for "small takes" by commercial fishing operations and the 1986 change which allows the take of depleted species (by industries other than fishing) toward the goal of establishing a regional decision-making process whereby government, fishing, environmental, oil and gas, and other users of living marine resources (including marine mammals) can rationally sustain the populations, as well as sustain both the non-consumptive and the consumptive uses.

The Association's Marine and Estuarine Committee has already endorsed the philosophy and recommendations of PMFC. We have also reviewed the May 10, 1988 document entitled "Recommended Changes from the Conservation Community and the Fishing Industry." Our review indicates the agreement will not lead to greater latitude in managing the marine ecosystem.

* It does not address the practical need to regain state involvement in day-to-day programs for marine mammals.

* It does not assure government control of nuisance animals when their populations are "depleted", a management tool that government has for other wildlife.

* It does not allow the intentional lethal take of marine mammals by fishermen (to protect their gear and catch) when the mammal population is decreasing or its status is unknown, even though the take may have no adverse impact on the population, yet the mammal's impact on the fisherman's business may be significant.

* It does not accept the data from the long-standing foreign observer program in Alaska, so it requires major expenditures of federal dollars to reverify what are known to be insignificant takes of mammals in EEZ fisheries.

* It does not address if a fishery impact is adversely affecting a mammal stock but instead subjects all fisheries with a "continuous, documented" take to the requirements of the special exemption. The real issue is whether or not the fishery interaction has a significant impact on the mammal resources. Nothing in the proposal suggests criteria or a process to determine on a fishery-by-fishery basis whether fishery interactions are actually impacting the viability of the mammal stocks. In this instance, minimal taking in any fishery is not valid criterion for mitigation or fishery control.

There are sufficient differences between foreign and domestic fishing operations to support the need for a domestic fishery observer program with verification as only one aspect. The program should be directed and implemented by the National Marine Fisheries Service and use specially trained observers to gather information needed to design and implement necessary research on fishery/marine mammal interactions.

On behalf of the proposal, it does require NMFS to prepare recovery plans which should better direct research programs to critical areas. It also addresses the need for better reporting by fishermen as well as an education program. The federal government has a responsibility for working with industry to implement these programs. Most importantly, it does allow most fishing to continue in the face of interactions with "depleted" species, although a five-year exemption is more realistic than only three years.

In conclusion, the Association strongly identifies with the need to move the MMPA toward an integrated management of marine mammals with other living marine resources and the uses of these resources by man. The recent proposal by the environmental community and representatives of the fishing industry appears to be a stop gap measure that will put undue burden on some segments of industry, use up significant fiscal resources, and, at the end of three years, provide no better indication of how regional management of fishery resources can be meshed with rational management of marine mammals.

IAFWA encourages a more comprehensive approach to marine mammal management and welcomes the opportunity to work with Congress on addressing the needs of the marine environment and all its users.

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